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THE VILLAGE SETTING

TABLE 1

162 **Comparison of age-group distribution of Silwa Bahari and Egypt as a whole.[1]**

Age group	*Percentage of Total Population*	
	Silwa	*Egypt*
under 5	15·0	13·3
5–9	11·9	13·9
10–14	11·2	12·0
15–19	11·1	8·5
20–29	14·5	15·2
30–39	13·9	14·6
40–49	10·5	10·1
50–59	6·1	5·9
60 and over	5·7	6·3
unidentified ages	0·2	0·2

361 Like many other villages in Upper Egypt, Silwa lies at the foot of the Eastern Plateau. This physical setting divides the villagers' world in Silwa into three distinct parts: the 'hills', the villages, and the fields. The barren [823] 'hills', with their rugged dark rocks, though a source of fear and apprehension to the children, are not so inhospitable for the adults who rely on the [241] salty clay (nitrous soil) found in these hills for use as land fertilizer. The [134] village itself is composed of compact houses built of sandstone, which is [342] available in the environment. There is hardly any planning in the village scheme, except for three main streets cutting across the village from east 363 to west and another main street leading from north to south; the first three forming the main routes from the village to the fields. The rest of the by-ways between the houses are narrow and twisted and are occasionally interrupted by heaps of stones and rubble. After 1936, owing to the increase 362 of village population, a new space between the old village and the railway line was allotted free by the government for building purposes. Most of this space has been built upon and inhabited mainly by those married sons whose parental homes have not sufficient room for their accommodation. 361 However, the finest buildings in the village are the two mosques. With [346] whitewashed walls, elegant and dignified minarets, and a floor covered with mats, these mosques represent one of the most cohesive forces in the [182] life of the villagers—religion.

[1] Here the percentages in Silwa are worked out from the figures given for 1947, but those of Egypt from the figures of 1937. Thus one could assume that the percentages of age groups have not radically changed. On the other hand, there are no details about age groups in Silwa in the 1937 Census.

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Chapter One

LIVELIHOOD IN SILWA

THE natural resources, methods of production, means of livelihood and property system of any community provide a tangible mechanism which regulates and gives stability to the relations between its members in accordance with the value system governing that culture.[1] In Silwa, the village community under study, agriculture is the basic activity of the great majority of the population.

According to the 1947 Census the distribution of occupations in Silwa is as follows:[2]

Occupation	*Male*	*Female*
Farmers	1288	1451
Industrial workers	47	84
Masons	47	0
Transport	36	0
Trade	60	1
Personal servants	10	387
Servants in Govt. offices and other social services	78	1
Unproductive and undefined jobs	272	86
Unemployed	292	317
TOTAL: 4457	2130	2327

Taking this table as a criterion for village occupations, it is clear that more than 60 per cent of the total population are engaged in agriculture. Yet the official census does not define its categories of occupation, and is

[1] Ernest Beaglehole, *Property, A Study in Social Psychology*, London, 1931.
[2] *Population Census, 1947* (Book I, Province of Aswan), Government Press, Cairo, 1951, p. 25.

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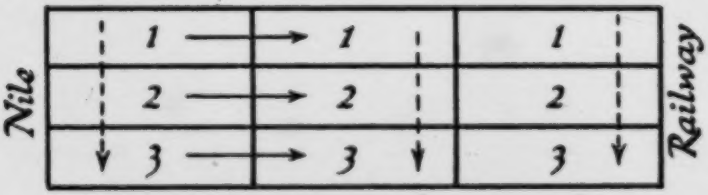
428 according to their share as if they were renting it to their brothers. In cases of friction, the land is parcelled between the heirs, and boundaries are [651] fixed; yet in the tax bill (wird) they are not divided and each has to pay his share of the tax, all being considered 'heirs of so and so'. This was originally a public demonstration of family unity. Lately, the separation of one's own land through official registration has been made an expensive task because of the fees required.

My informant, Mahmoud, told me that 'in these days, more often than [578] not, heirs insist on dividing the land, and this occasions the hottest disputes between brothers, sisters and relatives. Law-suits over land have sometimes cost people the land itself, when they had to mortgage more and more parts of their land to establish their rights over another part. No one "yields a finger" in his share of his father's land; and above all, obstinacy and "the assertion of one's word" complicate the matter. Our life is mostly spent in setting my right and your right—hakki hakkak.'

The actual process of dividing the land is done lengthwise, from 'the sea to the mountain' as the villagers put it. The following diagram shows how it is done:



Suppose the above plot of land is to be divided equally between three brothers; each would receive a narrow plot extending lengthwise, in the direction of the lined arrow, and not breadthwise in the direction of the dotted arrow. The land stretches normally from the Nile to the railway [311] station for more than a mile. It would be understandable that the villagers' division is better when the land varies in its fertility or ease of irrigation along that stretch. But this is always the practice, which involves more work in carrying fertilizer, and in irrigation. It also elongates the boundaries, thus providing more scope for breaking them and inviting trouble. The underlying notion behind this division, according to Mahmoud, is to share in every 'foot and finger' of the land that the father has bequeathed, irrespective of any other considerations, and hence there would be no difficulty in distributing the plots of land among the heirs. Such clinging [425] to every bit of the father's land renders the mutual transference of land, for the sake of convenience, very difficult to achieve.

241 The main crops grown are wheat and barley in winter, and millet in summer. This applies practically to every farmer in the village, as these crops provide the basis of his subsistence. Before the perennial irrigation, one main crop in winter was the general produce, but now these two

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crops have been adopted, besides vegetables and clover (berseem). During the last five years, persons who had sufficient land have started to grow sugar-cane and cotton with these two crops. This widened cropping has been due to the need for more cash crops, and to the increase in transport facilities for selling sugar-cane and cotton. On the whole, however, the village produces mainly subsistence crops, which form the basis of the villagers' bread intake.

The agricultural activities in the village are regulated by the time-honoured Ancient Egyptian calendar which is now known as the Coptic Calendar, and this co-exists with the two other calendars, the Moslem (Hijri) and the European (Miladi).[1] These three calendars are used by the villagers in different circumstances. The Coptic Calendar is the oldest in use, followed by the Hijri or lunar one, whilst the European has been adopted in Egypt since 1875. While the Coptic Calendar, based on the solar system, is mainly used to regulate and co-ordinate the agricultural activities, the Hijri Calendar, based on the lunar system, fixes the religious and ceremonial feasts; the European is mainly used for activities connected either with legal procedures or other official business. More often than not, especially with the older generation, the European dates are changed into either the Coptic or lunar dates.[2]

The methods and implements of work are more or less the same traditional ones known to have been used by the Egyptian farmer for thousands of years. The 'touriah' or the 'fass' is the indispensable implement to any farmer. It is a kind of hoe which can be turned to many uses, such as breaking up clods of earth, digging furrows, scraping fertilizer clay from the hills, and so forth. For ploughing, he uses the Egyptian plough called 'mihrat', dragged by one or two yoked cows. The water-wheel and the 'shadoof' are used at present only for irrigating the small parcels of land which are higher than the water level in the canals. Such plots of land are very few, compared with large areas which are easily irrigated by merely opening the runnel between the field and the canal, which is filled by the water raised by the pumping machine. The farmer also uses the 'garraffa', which is a beam of wood or a trunk of a palm-tree, to level down land after breaking up the clods with the hoe.[3]

In these methods of work, farm labour is extensive rather than intensive. Work is spread over almost the whole year. Of course, every farmer knows that more effort and concentration are called for in the two periods, that of preparing the soil and sowing of the seeds, and that of harvesting. Again, the gathering of fertilizer and manure is an equally important and arduous task, though more spread out during the period of two or four months for

[1] The Hijri Calendar starts with the flight of the Prophet from Mecca to Medina in A.D. 622.

[2] See Appendix II for a note on the use of lunar and Coptic months in the village with the agricultural and religious activities connected with them.

[3] For methods and implements of farm work in Egypt see Henry Habib-Ayrout, *The Fellaheen*, Chapter IV, Cairo (n.d.).

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the winter crop or summer crop respectively. The villagers depend mainly on a kind of clay (nitrous soil) brought from the eastern cliffs as fertilizer, called 'marog'. On camel- or donkey-back it is brought to the fields after a journey of approximately six miles which takes about four hours there and back. The saline properties of 'marog' are recognized by colour and taste. In addition, pigeon and chicken droppings, soil impregnated with stable-dung, and oven-ashes are also used to supplement the 'marog'. Chemical fertilizers are used by only very few people who have neither animals nor children to bring the 'marog', or by those who have so much land for which they could not possibly collect all the required 'marog', and hence have to supplement it by chemical fertilizer. Chemical fertilizer is usually preferred to nitrous clay for the cultivation of cash crops, sugar-cane and cotton, the area of which does not exceed thirty acres for the whole village.

With the help of my informant, Ali, I have tried to calculate the amount of time needed for the entire process of cultivation of both the winter and summer crops. It is obvious that such a task is a somewhat complicated one. However, we took the feddan as the functional unit of measurement and had to assume certain criteria for the labour in the farm unit. We had to answer questions such as: How many hours does a farmer work in the field in a day or during different periods of work? To what extent is the difference in output affected by physical conditions? What tools, implements and animals do we assume to be owned by the farmer for our calculations? How many children are assumed to be working on the farm, and what age groups are represented? However, we agreed to take a family, composed of a father, having two children, aged eight and thirteen, owning a camel, and working on an acre as the basis of our calculations. This unit was not entirely arbitrary, as the average size of the family unit is between five and six persons. To include two boys in such a family is not beyond the law of probability. The age represents one child under compulsory schooling, helping his father in the afternoon, while the other boy has just left school on reaching adolescence, when he can be relied upon to bring the fertilizer from the hill. The camel has been chosen as the median unit for the animal contribution to the farm work. It is true that not every farmer owns a camel, but alternatively he might well have a donkey to bring fertilizer and a cow for ploughing. In this case, he could lend his cow for ploughing to a farmer having a camel, and ask him in return for his camel to help him bringing extra fertilizer. One farmer may possess a plough and a donkey, and thus he can get extra help in conveying fertilizer by lending his plough. If a farmer has a third boy he could send him to help in working with another farmer in return for some needed help. However, every farmer possesses a donkey or a camel for loading as a necessary productive agent in agriculture. Thus the writer feels that the unit chosen is a feasible productive unit, representing the average working conditions.

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On this assumption we worked out the following periods of labour required in farming the winter crop, and this was generally accepted by the persons to whom we showed it.

Soil preparation and seed sowing: 10 days.
Collecting fertilizer: 2 months.
Distributing the fertilizer on the land: 3 days.
Irrigation (4 times, 2 days each time): 8 days.
Harvesting: 15 days.

As the farmer usually goes to his farm at sunrise (though unpunctuality, due to laziness, is not infrequent, specially in the case of men) and returns at sunset, he then works an average of 10 hours a day, less the interruption of about two hours for the midday meal (sometimes taken in the field, other times at home). Thus the net amount of daily work can be estimated at 8 hours.

In this way the assumed productive unit works the following hours.

For the winter crop:
Soil preparation and sowing: 80 hours adult male; 80 hours 13-year-old.
Bringing fertilizer (a load a day, involving 4 hours' work for 2 months): 240 hours 13-year-old.
Distributing fertilizer on the land: 16 hours.
Mixed labour in irrigation involving the man and 2 boys: 64 hours.
Harvesting: 120 hours adult male; 120 hours 13-year-old.
Total: 720 hours or 3 months' work.

Here is computed the specific hours involved in distinctly farm activities to the exclusion of minor jobs, such as feeding the animals, bringing food home, etc., which we assume the boy of eight years old to undertake, and the time for which cannot be reasonably computed. The following summarizes the basic work required with respect to the summer crop.

Preparation and sowing: 7 days.
Gathering fertilizer: 3 months.
Distributing fertilizer (twice, 3 days each time): 6 days.
Irrigation (8 times, 2 days each time): 16 days.
Harvesting: 15 days.

The hours involved are as follows:
Soil preparation and sowing: 56 hours adult male; 56 hours 13-year-old.
Collecting fertilizer: 360 hours 13-year-old.
Distribution of fertilizer: 48 hours adult male.
Mixed labour in irrigation: 128 hours.
Harvesting: 120 hours adult male; 120 hours 13-year-old.
Total: 888 hours (approximately 4 months).

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It is not claimed that these figures are anything but approximate, but they at least bring out the proportionate amount of work and show clearly the labour that can be undertaken by children in this agrarian community. They reveal that a 13-year-old boy can contribute to almost two-thirds of the actual labour in the cultivation of the land (his solo contribution for the winter crop being 440 hours out of 720; and 536 hours out of 888 hours for the summer crop).

One can assess from the approximate figures the paramount importance of children as a non-salaried essential in the labour-force, especially in a community where hired labour is extremely difficult to get. Moreover, it is not difficult to appreciate the maxim that an early son is of great service. It is a part of filial piety for a son to be expected to perform all that is within his capacity to relieve his father.[1] Thus from the economic point of view, a child's process of growing up connotes his father's gradual relinquishing of all the farm tasks he has been carrying out hitherto. One of the ideals of family life is for the children to do the things their parents have been doing before, as he who resembles his father has committed no injustice. This criterion is one of the elements involved in describing a boy or a girl as 'muaddab' or 'muaddabah'—disciplined. If the father has grown-up children to rely upon for work, this would certainly enhance his social prestige, being able through more leisure to participate fully in the social events, mediations and informal gatherings as he can afford the time for them.

Children are thus considered to be leisure-giving to their parents; since a leisurely father is one who is not hard-pressed by work and usually designated as 'sheikh arab'. Yet sons sometimes resent the excessive indulgence of their fathers in this privilege, when they feel that they themselves are overworked, or when incited by their in-laws or 'pals' that they are working like a donkey while father is acting like 'a great arab sheikh, enjoying the shade and the councils'. In some cases, this might lead to son and father friction, which might result in the former quitting the village.

A few people in the village have land, but no sons. In connection with this, Ali remarked that this is one of the ways in which God tested his creatures, by not letting them have both land and sons. Such people have to get permanent hired labour for the cultivation of their land; and these are euphemistically dubbed 'participants'. The owner provides the animals, implements, and seeds for work, while the participants provide the labour, receiving in return a quarter of the crop. Sometimes a part of the land is let to a person, the owner having nothing to do with it, but receiving one-third, or sometimes one-half, of the total crop besides paying the tax.

The economic contribution of boys applies equally to girls in connection with the household work. Girls are expected to co-operate with mothers in domestic tasks, and, as they grow older, to be increasingly able to relieve their mothers so that the latter can widen their social activities and

[1] See in this connection children's statements in the *Moral Ideology Test*, Appendix IX.

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enjoy the pleasure and prestige of 'mothers of children'. Thus in the same way, the girl, in relation to her mother, is not only considered as an economic asset but a means for getting more leisure and freedom from the pressure of work.

It is appropriate here to state the various activities which both boys and girls are expected to perform. Age and physical fitness determine the various tasks allotted to them.

In the case of boys, farm work is divided into three main categories, according to their ability to perform those duties independently. In the first stage, from seven to ten years, the boy is called 'hawwal', meaning that he can direct the water into the farm sections and is able to regulate by himself the process of irrigation. Twenty years ago, when the village was under basin irrigation, boys who used to attend to the turning of the water-wheel were called 'jaizar', but as there are very few water-wheels nowadays, this word is not commonly used in connection with this stage. Compulsory schooling for those who cannot evade it has made this job a part-time one.

From the age of twelve or thirteen boys are expected to undertake the conveying of fertilizer from the hills, and they are called at this stage 'marraga'—the bringers of 'marog'. They are trained by the age group that is immediately above them. A boy on his first 'hill ascent' to get the 'marog' must give the older boys with whom he is to be associated a present of wheat, bread and dates. If he does not fulfil this obligation, they usually, on their arrival at the 'marog' spot, undo the camel's reins and put them round the boy's face and neck, returning the camel empty to the boy's field. After fulfilling his obligation, they take him with them, and help him to learn the techniques of loading the camel and discovering the best kind of 'marog'.

At this stage also a boy starts tackling the 'shadoof' or as more commonly called in this district the 'ood'. If he can manipulate this instrument properly the boy is called 'awwad'. It is well established that a 'marrag' or an 'awwad' is almost synonymous to a good eater, and his request for food and the increase of frequency of meals and their quantity are usually complied with, as a recognition of his tangible economic contribution.

The third stage sets in by the appearance of the first traces of the boy's moustache, when he becomes a fully-fledged farmer, 'nabbar' or a 'fellah', from the age of seventeen onwards. The hallmark of this stage is for the boy to be allowed to sow the seeds, and to distribute fertilizer on the farm, as these are supposed to be the most skilful tasks in agriculture.

These three economic stages coincide almost with the three categories of the social grouping in the village, namely the group of youngsters, adolescents or non-married men, and fully-fledged men. One of the important qualifications for a grown-up marriageable youth is his ability to perform the various stages of cultivation, graduating, as it were, by becoming a competent farmer, able to sow the seeds and distribute the fertilizer.

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With regard to girls, there are no definite stages for female domestic tasks, but it is well known that the last stage of learning in a girl's home management skills is that connected with kneading and baking. The need for mothers to let their daughters take over their tasks is not so acute as with the fathers in relation to their sons. This is understandable, as the son is socially the symbol of the family and his skills are to perpetuate the family pattern of life.

The following is a detailed duty sheet of the farm and home tasks expected from both boys and girls at different ages:

Boys	*Girls*
FROM THREE TO SEVEN	
No serious tasks are expected till the age of five, whereupon they are required to work as messengers fetching goods from the shop, or running errands for their parents, uncles, etc. . . . fetching and taking things from and to other homes. Children (between five and seven) are considered to be the best messengers, especially for invitations or for asking help from neighbours, and borrowing from them, being less embarrassed, less inquisitive, and only repeating faithfully what is told to them.	Care of infants is one of the girl's main tasks at all ages, and starts as early as five, when she takes her younger sibling outside for play, or attends to him while mother is doing some domestic task. Runs errands like boys, especially for her mother or aunt, e.g. fetching fire, bringing food or other things that need to be hidden with the dangling parts of her head-cloth.
In the absence of older sisters he takes care of his younger brother or sister.	Accompanies mother to the well or to the Nile with her small pot or tin, carried on her head and supported by her lifted arms.
Towards the end of this period he goes to the field with his older siblings, or with his father, riding behind him on donkey back or balanced in one of the camel's panniers. Helps in carrying grass to the animals, scaring birds from the field, filling water-pots from the canal; ties or unties the cow, donkey and camel for his father or older brother.	Helps mother in bringing fuel to the oven or the fire, consisting of millet stems, tree branches, dry animal dung, etc. Makes her own loaf with the last bit of dough which she eats after it is baked. This is a means of her initiation to domestic tasks by being 'moistened with the dough', and a reminder that 'kneading and baking' are one of the most important jobs for a girl.
On the whole for him this is a stage of observation without allotted specific responsibilities. As the villagers put it, this is the period for children 'to be moistened with earth'.	

[Boys] [GIRLS] 857

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FROM SEVEN TO TWELVE[1]

Before the introduction of compulsory schooling and perennial irrigation, the specific responsibility for this period was irrigation—he still helps with it in the afternoon.

Collects leaves, clover, grass, and weeds for feeding the animals, takes animals to water, as tending animals is his main responsibility, whether at home or in the field.

Fetches drinking water on donkey-back.

Helps in harvesting.

Helps in digging land, breaking up clods with the hoe as an introduction to his use of implements.

Takes out and leads his blind or old father or grandfather.

Takes corn on donkey-back to the mill to be ground.

Tasks of previous period if no younger sibling in the family.

Establishment of tasks of preceding period, and helping mother in food preparation.

Fetches water from the Nile in a larger jar, as towards end of this period she can balance the filled jar on head without support of hands. [312] [482] [231]

Takes midday meal to the field, and brings home dates and vegetables.

Helps mother in attending to poultry and sheep, searches for straying sheep or chicken outside. [231]

Daughters of widowed women, or men who are not actually engaged in farming, gather fuel from along the roads. [868] [372]

Brings home 'clay' from the Nile or the field to help mother in building or repairing the oven, the pigeon-cote the fireplace and the earthen store for seeds.

Carries corn on her head to the mill. [482]

FROM TWELVE TO SIXTEEN

883

Fertilizer-fetching is the main responsibility. Father is responsible for the work on the land, while son is responsible for carrying fertilizer from the hill.

Rears with special attention animals allocated to him: calf, small camel . . . as an investment for his marriage-payment.

Makes ropes by twisting fibre of the palm trunk.

'Sea' is one of her main responsibilities, which means water-fetching from Nile mainly at night. [241]

Occasionally takes women's washing as well as her own to be washed in the Nile [296]

Sieves flour, sews and cooks. [231]

Heats the oven, kneads and bakes. [422]

Hair-delousing. [515]

Wool spinning and yarning.

Makes plate and dish covers out of palm leaves, and dolls to ornament her future house. [283] [285]

Errand-going decreases to the minimum.

May get married before sixteen. [582]

[1] This is the period where compulsory schooling has interfered with the traditional activities of children. 871

LIVELIHOOD IN SILWA

FROM SIXTEEN ONWARDS

[Boys]

885

[241] Beginning of responsibility with use of implements, e.g. plough, jarrafa, hoe, etc. . . .

[837] Responsibility in sowing, thinning out plants, and fertilizer distribution.

[285] Making 'maktafs', mats, panniers by plaiting palm leaves and sewing the plaits in the required shape.

[GIRLS]

All kinds of previously mentioned domestic work.

Complete seclusion, whether married or not.

883 A concrete example of a sixteen-year-old boy's day of work, who has no brothers, is given in the following account:

'I am overworked, because there are no other "hands" to help me and my father in working on our land. I spend practically no time at home during the day as I am busy now fetching the fertilizer and have to rise at the crack of dawn, when the "muazzin" calls "Prayers are better than sleep". My mother packs bread and dates, and sometimes eggs, in a [269] handkerchief for my breakfast on the way to the hills. I am then ready with my camel, either to call on my neighbours or to be called on by them for the "fajriah" - the dawn load. On our way to the hills we partake of [292] our breakfast and sing songs on camelback. On our arrival at a good spot we make our camels kneel, and load the panniers, filling the "maktaf" with clay first, lifting it on the knee and emptying it into the panniers. The test for a good 'marrag' is to be able to do the lifting and emptying in a steady way, maintaining a balance in the loads. Then we make our camels rise, and, following them, we go on to the fields. After the first load, we go back for a reload called "dihawiah"—the full beginning of the day (about ten o'clock). Meanwhile, my father prepares grass for the camel, or engages in irrigating the land. After the second load, I take my [264] midday meal at home, and go for a third load of fertilizer, called "asriah" (about three o'clock in the afternoon). If I don't go for the afternoon load, I help my father in distributing fertilizer for some time, then I would take the camel home, laden with grass, at sunset, whereas my father follows me later with the cow.

'Of course my work becomes easier when the fertilizer-fetching season finishes. I then can enjoy my tea in the morning, go to the field at broad daybreak, and attend to the feeding of the cow and the camel, or irrigate [264] the land. In the evenings I am not too tired to have a chat with my friends [574] after the evening meal, or to pay visits to my relatives.'

594 It is quite obvious from the preceding discussion that the welfare of the family depends largely on the labour potential it has at its disposal, and the harmonious distribution of that labour. One of the main features in the economic activities in the village is that immediately the younger child develops to the stage where he can take over the tasks carried on by an

LIVELIHOOD IN SILWA

girls, on the whole, getting less than the boys. Young girls may eat at their father's table, but after the age of twelve, sex dichotomy is established in food, and the female members of the family eat afterwards.

The meal usually starts with the invocation, 'In the name of God, the Beneficent, the Merciful', and ends by every participant's saying 'Praise to God'. The father, as the disciplinarian, watches to see if any child shows signs of greed or wasting food by dropping it, whereupon he has to ask him to control himself, saying, 'Oh boy! Why don't you say in the name of God?' If the child continues to be careless or rude, he might be hit or given less share of the meat or his share might be given to one of his more disciplined brothers. Generally speaking, children are expected to be silent and obedient at meals. A child's complaint about food is not tolerated as such a complaint removes 'baraka'.

The end of more pretentious meals, especially on festival occasions, always witnesses the family's remembrance of its deceased members, when the father asks all the members present to recite the 'Fatiha' from the Koran for the souls of the dead. The eve of the two religious feasts Ramadan and Adha is called Rahamat—mercy, where practically every family prepares a good meal at the end of which they ask God to have mercy on their deceased. On the morning of the feast-days, the women-folk make special wheat bread, which they take to eat or distribute among children or whoever is present at the cemetery, asking them to read the Fatiha for their dead.

Hospitality is shown by offering an excessive amount of food. In case of guests, the table or tray is arranged with loaves of bread all round, no gaps being left. The guests should be made to feel that there is an abundance of food and 'ghamoos', and should be encouraged all the time to eat by saying, 'Go ahead; do your best; try more of this', and so on. The etiquette of hospitality is that while the guest must show a kind of restraint, the host must be always persuading him to carry on. The host must also apologize for not being able to provide the right quantity and quality of food for the occasion, saying, 'May our affection cover up the deficiency in the meal'.

There is no doubt that the partaking of food is one of the main forces bringing about or reinforcing relationship between members of this community and between them and other neighbouring villages. 'There is bread and salt between us' is a strong binding moral force between two people or two families, and to betray bread and salt is almost a sin, which is punishable either in this world or in the next. The commensalism of the clan-meals in the breaking of the daily fast during the whole month of Ramadan, breakfast on the mornings of the two feasts and on funeral days is a reminder of, and contributor to, group solidarity. Boys who carry their fathers' trays of food are usually exchanged, and sent to eat at another man's tray.

At the beginning of the fresh harvest, a special meal is provided by

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neighbours in the field, where a small lamb or goat is killed in the field and cooked, on this occasion, by the men, while the women send the children with bread to the farm for the meal. It must be noticed that on this occasion, as well as at most communal meals, meat is served in one dish and is divided by one member or two amongst the participants. Such a meal will be followed by somebody standing up to invoke God's blessing —'baraka'—in the new harvest, as well as mercy on the deceased ancestors. Indeed Robertson Smith's remark is applicable to this community. 'The act of eating and drinking together is the solemn and stated expression of the fact that all who share the meal are brethren and that the duties of friendship and brotherhood are implicitly acknowledged in their common act.'[1]

To sum up, the village is a community of small landowners, who, irrespective of the size of their holdings, consider their land to be the basis of their livelihood and security and to be a possession for which they have great emotional attachment. There is no appreciable functional differentiation in occupations; hence, the amount of skill and knowledge required for livelihood is almost identical. In spite of a great deal of economic self-sufficiency in the peasant or rural community, and of reliance on subsistence crops, the inhabitants are still dependent on outside forces for the price of their crops and for the sale of manufactured goods and textiles. Moreover, with a population pressure, more and more of the village members have reluctantly left to seek livelihood in towns and cities and to take up work as caretakers and domestic servants. On their return to the village, such groups of people bring with them some of the town atmosphere, considering themselves 'masrawia' (been to the city). They sometimes consider themselves more refined, and are usually elegantly dressed, even adopting a different accent. Such mobility is definitely beginning to challenge in some measure the traditional stability and conventional behaviour.

In spite of the increasingly impinging forces of city life and the admiration of the villagers for city ways, the small landowners still uphold and maintain the vested common interest in favour of the traditional ways of life, symbolized in the dignity of farm-work compared to other occupations, in the importance of family unity and honour of ancestry in the religious ethic based on contentment and abhorrence of pleasure-seeking, and in social sensitivity to shame-provoking situations.

Furthermore, the feeling of equalitarianism is so striking in this community that any schematic class-division is very difficult to apply to its social structure. Here again, irrespective of their landholdings, they all eat from their hand produce consisting mainly of bread and the same varieties of home-grown vegetables; they live in similar dwellings, built of stone, dried mud and palm trunks, constructed by the village masons

[1] W. Robertson Smith, *Lectures on the Religion of the Semites*, London, 1894, p. 263.

1: Ammar E, I-5 (1951) 1954
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It is not without significance that in ceremonies of circumcision and marriage, the boy and the man have to visit the mosque in a ceremonial way where dates and food are distributed. In praise of marriage, a villager would quote the Prophet's saying, 'He who marries has perfected half his religious requirements, and he has only to fear God in the other half'. It is also worth stating that the majority of the personal names of both sexes have some religious meaning or are the names of some religious personalities.

The importance of sacredness not only permeates those levels, justifying acts and deeds, but also reaches the substance of living, namely, foodstuffs and bread, usually referred to as the 'sustenance of Islam' and which are considered to be sacred. A good harvest is a sign of God's approval; a torrent of rain which destroys the villagers' crops is a sign of His disapproval. To impart holiness to the land before sowing, or to the harvest before threshing, a sacrifice of an animal and the partaking of a communal meal are desirable acts. According to the enlightened religious view, the villagers do not distinguish between pagan and the proper Islamic concepts. The village schoolmaster said that the belief in the power of saints, sorcery, and magic, and the appeal to divination and ritual for healing the sick as practised in the village, are complexly interwoven with Islamic beliefs, but they are not in fact a part of the pure Faith.[1] It is believed that sickness might be inflicted by a saint for not fulfilling a vow taken in his name, or for not offering him his due customary gift and sacrifice. A great deal of treatment of disease and of acquiring of good luck could be achieved by prayers, sacred charms, and propitiation of saints. The strength of the religious force could be also ascertained from the fact that the most binding guarantee for a promise is to swear by the name of Allah or to read the Fatiha. It is also customary for the villagers to take an oath sacrifice for God or a saint, which is a kind of conditional oath involving the slaying of an animal on the fulfilment of a certain task and the attendant danger that may ensue in the event of perjury.

The certainty and uniformity in religious beliefs and rituals specially noted in the observance of the fasting month, is an index of the religious group cohesiveness. All the villagers belong to the Maliki school of the Sunni tradition. Most of the adult villagers attend the Friday noon prayers, and say their regular daily prayers either at home or in the mosque. There is a well-known Islamic tradition believed by the villagers that group prayers are more efficacious and rewarding than those said alone.

It is no exaggeration to say that the folk culture of the village is permeated by religious sanctions and moral values derived from the Islamic traditions as revealed in the Koran and also infused with rituals and beliefs of an older tradition. It is not difficult to assert that there is hardly

[1] See John Walker, *Folk Medicine in Modern Egypt*, London, 1934. Sir E. A. Wallis Budge, *Amulets and Superstitions*, London, 1930.

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is instilled in the child's mind at a very early stage, not only after it knows how to walk confidently, but even as a toddler, when his older sister or brother carries him outside the home to sit or crawl around while others play.

[198] Ali, my informant, commented that children have less scope and time for play than they used to. He added: 'The days of children's play have gone, and nowadays even the suckling has to worry about getting a living.

● [841] Since the introduction of perennial irrigation the people have cultivated the land "from the sea to the mountain". Yet they have no "baraka" (blessedness); they have become more greedy and less godly.'[1] The relation between perennial irrigation and the diminishing periods of children's play did not strike the writer as a plausible explanation at first. After further enquiry, however, the real significance became clearer. In the days of 'basin irrigation', with the exception of attending to the water-wheel, most of the irrigation work was done by the grown-ups, as the water was more difficult to obtain and therefore more valuable. At present, actual irrigation of land is mainly the boys' task, as besides the abundance of water, it does not involve more than removing the 'lid' from the opening (siyala) between the canal and the field. Moreover, during basin irrigation very much less manure was needed to fertilize even the same size of land tenure, which meant more time for children's play.

[524] [369] The influence of urban life has reflected itself in some of the sedentary games of the adults. On the market day especially, villagers who frequent the town or have worked there, can be seen playing a kind of 'draughts' (dumnah), or kind of 'trictrac' (tawlah) or cards. Because this type of play depends on 'chance' it does not win social approval, as all 'hazardous' play is 'Kumar' (betting) which is religiously forbidden. On the other hand, children's play has not felt the impact of urban influences and one cannot find even manufactured dolls in the hands of children.

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In the sociological analysis, the emphasis has been chiefly on the part that child play performs in the formation or expression of social attitudes, habits and skills and the ways of acquiring what is in Malinowski's phrase 'the basic grammar of the culture pattern'. Although for certain purposes the social and the psychological approaches can be separated, it is essential in the treatment of play situations to apply both. While one must examine the reflection of social norms in play, one must also consider the manipulation of the psychological forces, e.g. giving vent to aggression or the importance of parent-child relationship, in the process of growing-up as expressed in children's play. With the full realization that neither the social-cognitive, nor the psychological-symbolic significance, is by itself the real meaning of play, the latter aspect will now be discussed.

There are various theories that purport to explain play. Here we are not concerned with identifying ourselves with any of those theories advanced by Herbert Spencer, Stanley Hall, Karl Groos, or Sigmund Freud.

[1] Such a statement contains the elements of cynicism and puritanism which sometimes colour Ali's information.

1: Ammar E, I-5 (1951) 1954
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when the land used to be flooded with the water of the Nile during this period.[1]

Thus these phrases connected with the Coptic months contain some of the community's wisdom related to its technical activities, food consumption and indications of weather changes. It is worth noting that while there are no fixed dates in the Coptic Calendar for any specific agricultural activities, the latter are carried out within a certain time-limit, such as the beginning of a month or second week in a month or towards the end or before beginning of such and such a month, and so forth.

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The following is a seasonal calendar for the various types of farm work as regulated by the Coptic Calendar.

Coptic Months	*Agricultural Activities*
Toot	*The Winter Crop (Shitwi)* Either fallow land or early harvested millet: during the first ten days of the month land is sown with clover (berseem).
Babah	Sowing of wheat and barley (during the first ten days). First irrigation of beans and clover.
Hatoor	First irrigation of wheat and barley called 'cleaning irrigation'. Cutting clover before irrigation. Irrigation of beans.
Kiyah	Second irrigation of wheat and barley after distributing fertilizer. Cutting of clover for the second time.[1] Irrigation of beans and clover.
Toobah	Third irrigation of wheat, with fertilizer only for the weak section. Third irrigation of barley. Third cutting of clover. Irrigation of clover and beans.

[1] Clover is cut four times, at intervals of thirty days.

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APPENDIX II

Coptic Months	*Agricultural Activities*
Amsheer	Fourth irrigation of some wheat sections. Last cutting of clover. Boys begin to collect fertilizer for the summer crop.
Baramhat	Harvesting of barley and beans. Harvesting of early grown wheat.
Baramoudah	Harvesting of wheat. Clearing the land, and preparing soil by digging or ploughing it for the summer crop. By the end of the month the millet is sown.
Bashans	*The Summer Crop* First irrigation of millet after fertilizing. Second irrigation, as millet requires water every fifteen days.
Baoonah	Breaking up the soil, and weeding. Second irrigation after fertilizing. Third irrigation at the end of the month.
Abeeb	Fourth irrigation with fertilizer for weak plants. Fifth irrigation for some plants. Boys begin to collect fertilizer for winter crop.
Misri	Harvesting.

The calendar gives the main crops which practically every farmer in the village grows and which constitute his diet of wheat and barley bread in summer, and millet bread in winter. Apart from these, clover (berseem) forms the main feeding-stuff for the domestic animals in the winter, while chaff and the millet plant leaves serve as fodder in summer.

1: Ammar E, 1-5 (1951) 1954
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Appendix Three

AN ASSESSMENT OF THE STANDARD OF LIVING IN SILWA

In discussing the standard of living in the village, the writer is aware that the term is essentially a relative or comparative one. Its application in such a manner is almost impossible as there is no way of comparing the present conditions of the village with those of the past or with those of the town. Certain changes in the demands of the peasants as a result of increasing contacts with town life will be discussed later; it is sufficient here to mention that the villagers, at least those who frequent the town, are aware of other standards of living to which they would like to attain. Consumption, production and human needs are sociologically relevant only in so far as they are related to a particular society. For a sociological enquiry human needs have no absolute validity independent of their cultural context and their knowledge by the members of that particular community. Beyond this any statements concerning minimum standard of living or basic needs inevitably imply a value judgment.[1]

Here the criterion to be adopted for the evaluation of the standard of living is an internal one; in other words, we are attempting to compute whether the land owned at present by the people in the village is sufficient to supply their needs as envisaged by the people themselves.

The main index for such an evaluation would be the relation between the average income and the average consumption *per capita*. The value of crops is estimated in the following computation according to 1951 prices.

The acre in winter crop produces on an average:[2]

Product	*Price per unit*[3] *in £E*	*Total*
4 ardabs of wheat ..	6	24
1 ardab of barley ..	3	3
1 ardab of beans ..	6	6
		£E33

[1] See J. E. Goldthorpe, 'An Examination of the Concept of Need', *The Sociological Review*, Vol. XLII, Section 10, 1950. Also, M. Read, *Native Standards of Living*.

[2] As a rule, for winter crop, two-thirds of the acre is sown with wheat and the rest with barley and beans. [3] The Egyptian pound is almost equivalent to the English pound.

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APPENDIX III

The summer crop is only of one kind, millet.[1]

Product	*Price per unit in £E*	*Total*
6 ardabs ..	3.50	£E 21

With every feddan a farmer can own the following animals:

1. A cow, which every two years would bring a calf worth £E6 income per year 3
2. A camel, which every three years would bring a camel worth £E6 per year 2
3. Five sheep, each bringing two lambs a year worth 30 piastres 3

Total income £E8

Thus the total income from cultivating an acre and the profits derived from animals per year amounts to .. £E61
Subtract for taxes and sowing seeds .. 1.50

Net income £E59.50

And as the *per capita* property of land is about one-third of an acre, then the *per capita* income from agriculture is about £E20. Moreover, according to the Postmaster, the village received (during the period of my field work) between £E400 and £E600 per month from those relatives who work in town, which, distributed per head, would make the total income per head £E21 per year.

511 On the other hand, it was more difficult to assess the *per capita* consumption of food and goods. The difficulty is obvious in a community which is self-sufficing in many ways, and which keeps no written records of its budgets. Expenditure, however, does not vary considerably from person to person in the village, and the following estimate will give an approximate picture.

[593] The consumption of bread has been estimated on the surest criterion which is the amount of crop that a father allows his son in his marital residence to take to his wife and children.

Winter Harvest

Two-thirds ardab of wheat for the husband
One-half ardab of wheat for the wife
One-quarter ardab of wheat for the child under seven
One-half ardab of barley for the husband
One-half ardab of barley for the wife (and chicken)
One-quarter ardab of barley for the child
One-twelfth ardab of beans per person

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[1] Dates are not included here as they are usually consumed daily by the family. Berseem is not also included in winter crop, being consumed by animals.

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APPENDIX III

Average consumption is then:			*Price in £E*
One-half ardab of wheat per head	..	..	3
One-third ardab of barley per head	..	..	1
One-twelfth ardab of beans per head	..	..	1
Total	..	..	£E5

For the Summer Crop:

Two ardabs for husband
Two ardabs for wife (and chicken and sheep)
Half ardab for child

Average consumption one and five-sixths ardabs	..		6.50
Total expenditure on bread and beans	..	..	£E11.50

Expenditure on manufactured and prepared goods:

			£E
Clothes	..	..	4
Tea and sugar		..	3
Soap, kerosene, etc.	..	..	1
			£E19.50

The income or expenditure does not include items such as vegetables, e.g. onions and lentils, which are grown for home consumption. Yet two main items are not inserted: tobacco and meat. Meat purchases could be offset by the sale of chickens and eggs, but certainly the use of tobacco would raise the average consumption to £E20 at least.

It will be noticed that the expenditure on tea and sugar per head is proportionately large. Tea, with plenty of sugar in it, and no milk, is the fellah's main liquid intake, as he can drink tea at any time. It is almost one of the necessities of life in the village, and neither adults nor children seem to be able to do without it. Tea is taken at home and 'lubricates the mouths' in formal and informal gatherings outside dwellings and in guest houses. Two decades ago, Ali told me that food was the attraction of such gatherings, but now tea has become the fashion. It is a disgrace to omit to offer tea to a visitor. If while serving tea, or a meal for that matter, to a guest, another visitor arrives unexpectedly, the host is obliged to make another pot of tea for him, or at least insist orally on making it, perhaps later; otherwise, the latter would feel offended and consider that he was offered 'chance-tea' (sadaf), as such an offer is not considered hospitality.

Looking at the villager's budget of £E21 income and £E21 consumption, one can appreciate the precariousness of his financial solvency; and in case of misfortune his budget could be easily upset and cause him to fall into debt, an abhorrent state of affairs. One of the fellah's maxims is that 'debt is a worry at night and a humiliation during the day'.

2: Blackman E-5 (1920-1926) 1927
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times the pigeon-houses are painted with simple white designs. This is done, so I was told in one or two villages, because the birds like it, and it draws them back to their own houses! Pigeons are kept chiefly for the sake of the dung, which is considered to be a valuable fertilizer for the fields. Probably, however, more harm than good is done to the crops by the breeding of these birds, for they accumulate in large flocks when the corn is ripening, and are with difficulty dispersed by men and boys armed with slings and stones.

FIG. 6. A VILLAGE HOUSE OF THE BETTER SORT

The houses of the peasants, in many cases mere hovels, are made of crude bricks, sometimes covered over with mud plastering. In the better houses (see Fig. 6) there is generally a flight of steps leading to an upper story, where there may be a sitting-room (*mandareh*), furnished with benches (called *dikak*, singular *dikkeh*), which are covered with rugs and supplied with cushions. The room in which the foodstuffs are kept is also usually in this upper story. The flat roof (Fig. 7) is a pleasant place on which to sit and watch the life in the streets below; it also serves as a hen-run, dog- and cat-run, a drying-ground, and is put to other utilitarian purposes. Here, for example, are stored huge bundles of sticks and dry maize-stalks (called *būṣ*), together with quantities of cakes of cow- and buffalo-dung, neatly stacked in rows, which are used

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sovereign, after that he was more than a hundred years old, became an object of envy to the favourites of the King and the puissant seigneurs of the Court of Memphis, on account of the great power which he wielded and the affection entertained for him by his monarch. They accordingly thus addressed the King: 'Great King, Joseph is now very old; his knowledge has diminished; his beauty has faded; his judgment is unsound; his sagacity has failed.'

"The King said: 'Set him a task which shall serve as a test'

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FIG. 13. A VIEW OF THE BAḤR EL-YŪSUF, WITH A SHĀDŪF AND WATER-WHEEL ON THE RIGHT

At that time el-Fayūm was called el-Hun, or 'the Marsh.' It served as a waste basin for the waters of Upper Egypt, which flowed in and out unrestrained. The courtiers, having taken council together what to propose to the King, gave this reply to Pharaoh: 'Lay the royal commands upon Joseph that he shall direct the water of the Nile from el-Hun and drain it, so as to give you a new province and an additional source of revenue.'

"The King assented, and, summoning Joseph to his presence, said: 'You know how dearly I love my daughter, and you see that the time has arrived in which I ought to carve an estate for her out of the crown lands, and give her a separate establishment,

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I fancy that there was really no just cause for the woman's jealous suspicions. However, she has reduced her husband to a state of abject fear lest he may arouse her anger—though I did hear that on one occasion he had plucked up sufficient courage to exercise his 'rights' as a husband, and so had administered a whipping for some fault she had committed!

With regard to the division of labour among the sexes, the men certainly have the hardest and largest share, the most strenuous work in the fields being invariably done by them. The women and girls join their menfolk in the cultivation after the sun has risen, but their work is usually confined to the gathering of dry roots, tending the cattle, fetching the water for the household (Fig. 16), and so on. Of course, living is simple among the peasants, so that very strenuous work for the women is not necessary. Much, however, that might be done by them is neglected simply because they are without training in domestic duties and do not realize what important work lies to their hands.

It is, of course, very difficult for the peasants to be as clean as they should be. All the water has to be fetched by the women, often from some distance. No water is laid on in the villages, no bathrooms exist, and the houses lack the most ordinary domestic offices. Excuses must, therefore, be made for the Egyptian women, who have had none of the advantages of the poorest woman in England. The instinct of the Egyptian *fellāḥīn*, however, is to be clean, and the religion of Islām commands ablutions. A man will almost instinctively strip and bathe if he happens to be near a canal or the river, but this privilege is denied to the women, as modesty forbids their bathing in public.

One of the most crying needs in Egypt is that both girls and women should have instruction in the care and upbringing of children. The children undergo a great deal of unnecessary suffering during the early years of their infancy; not because their mothers are lacking in affection, for Egyptian women are, as a rule, devoted mothers, but because they are so hopelessly ignorant.

The results of such ignorance more often than not leave an indelible mark on the child, such as defective eyesight or even absolute blindness. To prevent or cure disease in their children the women will go to one magician after another and purchase from them amulets and written charms, not grudging for a moment the expenditure of what may be to them considerable sums of money.

[Text continues on page 42]

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attached a string of seven grains of beans and a little cotton bag containing a small quantity of the seven ingredients of one of the baskets (Fig. 37).

The midwife's fee consists of a large basket (Fig. 38) of maize, bread, dates, various nuts, and occasionally a little money.[1]

Some of the six various grains, together with the salt, are often given to the father to scatter over his fields. This is a fertility charm, and is believed to ensure his having good crops.

FIG. 38. MIDWIFE CARRYING HER WAGES ON HER HEAD

In addition to the charms mentioned above, the child sometimes has another one made of thick iron wire twisted into a particular shape (Fig. 37). This is also hung round the child's neck, but only so if, when it cries, it clenches its hands and shakes itself.

In some parts of Upper Egypt the following mixture is put into a child's eyes by the midwife on the seventh day. The woman brings an onion with her and squeezes the juice from it into a small coffee-cup, mixing with it salt, oil, and, usually, *kohl* also. Then, taking a feather, she dips it into the mixture and, opening the child's eyes, brushes the feather right across them. It is believed that this will give the child wide open and beautiful eyes.

The naming of the child is part of the seventh-day ceremony. If the parents are anxious to discover the best and luckiest name for their offspring they proceed as follows. Candles, usually four

[1] Sometimes she is, I believe, paid only in grain.

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and on the exact site of the crime. Moreover, the same number of knots was tied in the handkerchief used by the avenger as had been tied in the handkerchief used by the original murderer.

On another occasion the train in which I was travelling stopped close to a certain village in Middle Egypt. I noticed that the place was in great commotion; crowds of people had collected in the streets, and there were two or three motors drawn up, evidently belonging to Government officials. In a palm-grove opposite the village were groups of people, mostly women, seated round objects covered up with black cloaks such as are often worn by the men. Presently my servant came to the door of my carriage to tell me what was the matter. His information, collected from various persons on the spot, was practically the same as what I was told later by the officials themselves. It seems that in the village in question there is a long-standing feud between two families, one of which is weak, the other strong. About eight months previously the strong family had fought with the weaker one, and had either killed or severely wounded—I forget which—some of its members. The weak family was not in a position to take immediate revenge, but bided its time, determining to retaliate sooner or later. During the night before my visit fifteen members of the more powerful family had been out in their fields, as water had been turned on for irrigation purposes. It is always necessary on these occasions to see that the water is conducted into the proper channels, and also that no one steals it by altering its course. The men thus employed were widely separated from each other, and during their watch they all fell asleep. The weaker family knew that this might well happen and so give them the long-desired opportunity of taking their revenge. A number of them, therefore, set off from the village at night, and, creeping up to their sleeping enemies, beat them so severely with *nabābīt* that those they did not kill outright they injured so terribly that they were not expected to live—I never heard definitely how many actually were killed, though one rumour, happily an exaggeration, I believe, put the number as high as twelve.

The law of blood-revenge is one of the greatest obstacles to justice with which the police officials have to contend. It is most difficult to obtain evidence, because the witnesses know that, should what they say result in a criminal's conviction, his relatives will certainly take revenge. It is not to be wondered at, therefore, that

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CHAPTER X

AGRICULTURE AND HARVEST RITES

THE wealth and prosperity of Egypt is, and always has been, dependent upon the produce of the soil, and the peasants are before everything else agriculturalists, as is also indicated by the Egyptian Arabic word for peasant—*fellāḥ* (plural *fellāḥīn*), meaning one who digs or tills. The peasants, most of whom are quite illiterate, are remarkably clever agriculturalists, and every young boy is well versed in all that pertains to the cultivation of the soil. Their methods are, for the most part, very primitive, though, of course, the present system of storing water and of distributing it over various districts has been adopted comparatively recently, and to maintain it a number of highly trained engineers are required. This book is not concerned with these modern developments, which, indeed, lie beyond the scope of anthropology, but with the ordinary work in the fields, where ancient methods and ancient implements are still largely employed, and ancient customs are still observed.

The cultivated lands in Egypt lie along either bank of the river, without any apparent boundaries, for there are no hedges to divide the fields as in England. To the eye of the ordinary traveller there is nothing to indicate where one man's property ends and another's begins. The fields are broken up into small squares, separated from each other by ridges of earth and narrow trenches. When water is distributed over a given area it is conducted through the trenches into the square plots by making an opening through the ridges which surround them. When the plots have received their due allowance of water the openings are built up again and the stream is directed to another portion of the land.

The greater number of the peasants own or hire small plots which are marked off one from the other by boundary stones stuck into the ground at intervals of six feet or more. Many a village quarrel has arisen over these stones, the removal of a neighbour's landmark being a constant cause of disturbance. If a man, for

2: Blackman E-5 (1920-1926) 1927
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instance, thinks he would like to add to his own property by stealing a portion of his neighbour's he will surreptitiously shift his boundary stones farther on to the adjoining land. This is, of course, quickly detected by the man whose land has been encroached upon, and a bitter dispute will follow, which may end in a violent quarrel.

The plough which is in common use at the present day is a primitive, but quite adequate, machine (Fig. 97). It is made entirely of wood, with the exception of the share, which is tipped with iron. It is generally drawn by oxen, but in Upper Egypt I have seen more than one plough with a camel and a donkey yoked together, a somewhat incongruous pair! The peasant follows on foot, guiding the plough, and usually singing as he works. Except during the inundation the work in the fields is incessant, for, owing to the very fertile soil, one crop can follow another in quick succession.

FIG. 97. A PLOUGH AS USED TO-DAY

The watering of the fields is very strenuous work, the commonest machine used for this purpose being the *shādūf* (see Fig. 13, right, and Fig. 108), a primitive water-hoist. It consists of two upright wooden posts, or pillars, made of mud and *būṣ*, connected by a horizontal bar, across which is slung another bar, or a stout branch of a tree, weighted at one end with mud and stones, while from the other end is suspended a leather or basket-work bucket. The man working the *shādūf* pulls down this bucket into the water (either river or canal), and, when it is full, allows the weighted end to raise it to the level of the land. He then pours the water into a prepared channel, through which it flows in the required direction.

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AGRICULTURE AND HARVEST RITES

If the land to be irrigated is much above water-level two or three of these *shawādīf* (plural of *shādūf*) are worked one above the other.

The men thus engaged usually sing at their task, some of their songs being very melancholy, and descriptive of their hard and laborious toil. One of them runs thus:

Shawādīf,
Their ropes are of palm-fibre
And their pails are of goatskins.
And it was in ancient times that *shawādīf* were
invented
By the blessed Ṣāliḥ Zabādi.

The ropes referred to are those by which the bucket is suspended from the end of the weighted branch which acts as a lever. The name of the supposed inventor is, of course, mythological.

The following is a lament on the hard labour involved in the working of a *shādūf*:

Hast Thou resolved upon strangling me, O God?
Loosen the noose!
No mother weeps [for me],
No aunt,
No sister![1]

Another method of raising the water is by means of a water-wheel round the circumference of which pottery jars are attached. Another small wheel with cogs is attached to the same axis as the larger wheel, and into it fit the cogs of a large horizontal wheel. When this is made to revolve the two vertical wheels are set in motion. A long pole is attached to the horizontal wheel, and to it an ox, cow, or buffalo, or even a camel, is yoked and driven round and round by a man or boy. The animal is usually blind-folded to prevent it from becoming giddy. The groaning and creaking of the turning water-wheel form, to my mind, a most soothing sound.[2] Yet another contrivance for raising the water to the level of the fields is the Archimedean screw, depicted in Fig. 98.

During harvest-time every available man, woman, and child is employed in the fields; but before any of the corn is cut some of the villagers go into the fields and pluck the finest ears by hand. These are plaited into a special form, and this object, called the

[1] See H. Schaefer, *The Songs of an Egyptian Peasant*, translated by F. H. Breasted (Leipzig, 1904), pp. 43 f.

[2] For excellent photographs of a *shādūf* and a water-wheel see *op. cit.*, pp. 45 and 107.

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt

'bride of the corn' (*'arūset el-ḳamḥ*), is used as a charm. One may be suspended over the house-door as an antidote to the evil eye; another may be hung up in the room containing the stores of food, as a charm to ensure abundance. Many tradesmen hang such objects in their shop-windows, believing that this will bring them plenty of customers. Again, in some parts of Egypt the 'bride of the corn' is temporarily placed on the heaps of grain after the winnowing is completed, as a charm to secure a good harvest the following year. Sometimes the grain from these heads of corn is extracted and mixed with the next year's sowing. The 'bride' may be left hanging till it is replaced at the next harvest, or, again, it may be allowed to remain in its place until it falls to pieces (Fig. 99).

FIG. 98. THE ARCHIMEDEAN SCREW

Before the field is cut a certain number of people are given presents of corn by the owner. These gifts of the firstfruits are bestowed on some of the poorest people in the village, as well as on the barber, the *mueddin* (the man who chants the call to prayer from the mosque), the *zummāreh*-player, the carpenter, and the *fuḳahā*—the last-mentioned being poor men who recite the Ḳorān in mosques, in private houses, at funeral ceremonies, and at the periodical visits to the grave (see pp 112, 114 f., 117 ff., and Fig. 100).

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt

THE FELLĀḤĪN OF UPPER EGYPT

In the chapter dealing with survivals it will be seen that some of these harvest customs can be definitely dated back to very early times in the history of the country.

I have stated above that harvesters are usually paid in kind instead of in cash, and that the women and young girls carry these wages home on their heads. The methods of threshing and winnowing the corn received as wages are more primitive than those already described in this chapter. The threshing is done by beating

FIG. 109. THRESHING WITH A STICK

with a stick (Fig. 109), and this process is often, though not always, carried out by the women. When threshed the corn is usually placed in a large, round tin bath, and the winnowing is done by simply taking up the grain in the hands and throwing it into the air (Fig. 110). The chaff is blown away by the wind, the grain falling down again into the bath. It then goes through a second process of winnowing with a sieve.

The grain, when required for use, is ground in primitive hand-mills, and "two women . . . grinding at the mill" is quite a common sight in Egyptian villages (Fig. 111). The stones from which these hand-mills are made are obtained, so I was informed, from the desert, and are chipped into the desired shape. The flour is very coarse after this grinding, and, moreover, after it has fallen

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt

down round the grinding stones on to the dirty ground it can hardly be called pure or clean! Fortunately there is in most villages at

FIG. 110. WOMAN WINNOWING WITH THE HANDS

FIG. 111. A HAND-MILL

least one mill worked by steam, and the women take their flour there to be ground for a second time. During this process many of the impurities are removed from the flour.

ʿAFĀRĪT

boy fell to the ground, where a stone struck one of his eyes and destroyed the sight. The boy then knew that the donkey was really an *ʿafrīt* which had assumed animal form, and presently he heard it saying, "Don't come here again. If you do I will injure you!"

Up to the present time the boy, who is now a grown man, has never dared to return to this church for fear of the *ʿafrīt*. He told my informant this story himself, and swears to the truth of it.

The *ʿafārīt*, as I have already explained, sometimes leave their subterranean home and come above ground. It is therefore considered dangerous to stamp on the ground, to strike it with a stick, or to throw anything violently on it. Such acts should be especially avoided at night, when the *ʿafārīt* are believed to come up in large numbers. If a man, therefore, has to walk some distance at night he is glad if he can get a fisherman to accompany him, for he believes that then no *ʿafrīt* will come near him. The *ʿafārīt* are afraid of fishermen and of their nets, and when they see these men throwing their nets they run away in terror. One woman told me that the *ʿafārīt* fear that they may get caught in the nets.

A few days after I had left a certain village in Upper Egypt a boy who was employed by the *ʿomdeh* (headman of the village) was in the building containing the machinery installed by the *ʿomdeh* for pumping up water for irrigating his fields. It was at night, and for some reason or other the boy happened to stamp on the ground with his feet. Soon after he lay down to sleep, but was aroused by an *ʿafrīt* who tried to pluck out his eyes. The boy cried out, "Oh, leave me, and forgive me!" But the *ʿafrīt* refused, saying that when he had stamped on the ground he had injured the head of one of his children. The boy cried out, and then, being a Copt, crossed himself, whereupon the *ʿafrīt* disappeared.

That *ʿafārīt* are capable of kindly actions is shown in the following belief. A boy who is still uncircumcised may be mysteriously carried away when sleeping beside his mother at night. He will be brought back to his sleeping-place on the same night, and on the following morning his mother will find that he has been circumcised, the operation having been much better done than if it had been performed by the village barber; moreover, the wound will be found to have already healed. In such a case it is believed that the boy has a good *ḫarīn* who has brought good *ʿafārīt* to perform this painless operation painlessly.

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Copts MR10

THE FELLĀḤĪN OF UPPER EGYPT

Before people take up residence in a newly built house, or complete a well for a water-wheel, or use new machinery for irrigation or grinding corn, an ox or a sheep, or, if the people are poor, a fowl, must be killed on the threshold of the house, or close to the engine, or inside the well before the water-level is reached. This is done in case these spots may be haunted by *'afārīt*, who will trouble the owners if not first appeased by the blood of a sacrifice.

Within a year three people were killed by the irrigation machinery

FIG. 137. THE MOTHER OF THE BOY WHO WAS KILLED WAILING OUTSIDE THE 'OMDEH'S ENGINE-HOUSE

belonging to the *'omdeh* of the village mentioned on p. 235 (see also Fig. 137). One, a woman, was killed not long before I arrived there, a boy was caught in the machinery and killed during my visit, and a man was killed in a similar way just after I had left. This *'omdeh* had made no sacrifice before using the engine, so a number of the villagers went to him and demanded that he should kill an ox on the spot. This he did, about a month after I had gone, and some of the blood of the animal was sprinkled on the engine. Apparently this has appeased the *'afārīt*, for I have heard of no accidents since the sacrifice was made!

There is an old Copt in that village, considerably over ninety

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Ancient Egypt MR5

ANCIENT EGYPTIAN ANALOGIES

FA 286

Looms like those used by modern Arab women (p. 162 and Fig. 93) are depicted in Twelfth-Dynasty paintings at Beni Ḥasan and elsewhere[1] (Fig. 177). The modern and ancient (Fig. 173) spindles are hardly to be distinguished from one another.[2]

FA 252

On p. 163 I speak of loaves being put to rise in the sun before

A [285] [172]

FIG. 175. EIGHTEENTH-DYNASTY BASKETS
After W. M. F. Petrie, *Sedment*, Part II, Pl. LV.

being baked. This seems also to have been done in ancient Egypt.[3]

FA A43

The open-air market (pp. 164 ff.) was evidently as distinctive a feature of ancient as it is of modern Egyptian life.[4] The part played by saleswomen in the markets was noticed by Herodotus,[5] and, it would seem, somewhat exaggerated.

FA 241 423

The breaking up of the fields into small squares separated from each other by ridges of earth and narrow trenches (p. 169) is an ancient practice, as we learn both from reliefs and paintings.[6]

[1] See L. Klebs, *Reliefs und Malereien des Mittleren Reichs*, pp. 126 ff.; see also H. E. Winlock, "Heddle-Jacks of Looms" in *Ancient Egypt* (1922), pp. 71 ff.
[2] L. Klebs, *op. cit.*, p. 126.
[3] T. E. Peet and C. L. Woolley, *The City of Akhenaten*, Part I, p. 64.
[4] A. Erman and H. Ranke, *op. cit.*, pp. 508 f. [5] II, 35.
[6] See, *e.g.*, P. E. Newberry, *El-Bersheh*, Part I, Pl. XXVI.

A [113]

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Ancient Egypt MR5
Graeco-Roman Egypt MR4

THE FELLĀḤÎN OF UPPER EGYPT

and from the excavations of the Deutsche Orient-Gesellschaft at el-'Amarneh.[1] The shifting of the boundary-stone (pp. 169f.) is condemned in *The Teaching of Amenōphis, the Son of Kanakht.*[2]

FIG. 176. A MODERN (LEFT) AND ANCIENT (RIGHT) BASKET
The latter after H. E. Winlock, *Bulletin of the Metropolitan Museum of Art, New York*, Part II (December, 1922), p. 35, Fig. 24.

The modern plough (p. 170 and Fig. 97) is almost exactly like the ancient one (see Fig. 178).[3] For a drawing of an ancient plough reconstructed from still surviving portions see Fig. 179. Dr Borchardt thinks that the ancient like the modern plough was furnished with a metal share. Accordingly the wooden share in Fig. 179 is represented as sheathed in metal. Dr B. P. Grenfell told my brother that the blade of the *fūriyeh* (hoe) had acquired its present shape, and was already made of iron, by Roman times, for he had found such blades in rubbish mounds of the Roman period.

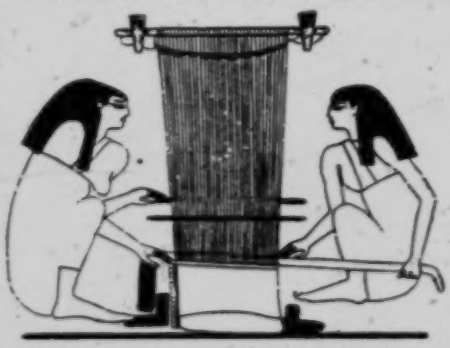

FIG. 177. TWO WOMEN WEAVING ON A HORIZONTAL LOOM
After F. Cailliaud, *Recherches sur les arts et les métiers*, Pl. 174.

The modern *shâdûf* (pp. 170 f.) finds its exact counterpart in

[1] *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin*, vol. 1, p. 17. For a photograph showing a modern cultivated patch of ground so divided, see G. Steindorff, *Die Blütezeit des Pharaonenreichs* (Leipzig, 1926), Fig. 54.

[2] F. Ll. Griffith, *Journal of Egyptian Archæology*, vol. xii, p. 204.

[3] A. Erman and H. Ranke, *op. cit.*, Pl. 35; A. Erman, *Life in Ancient Egypt*, translated by H. M. Tirard (London, 1894), p. 426; J. G. Wilkinson, *The Ancient Egyptians*, vol. i, p. 281; L. Borchardt, *Priestergräber . . . vom Totentempel des*

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Ancient Egypt MR5

ANCIENT EGYPTIAN ANALOGIES

paintings dating from the New Kingdom (Fig. 180). Wooden *shādūf*-hooks, the hooks from which the leather buckets are hung,

FIG. 178. AN ANCIENT PLOUGH
After Norman de Garis Davies, *The Tomb of Nakht at Thebes*, Pl. XVIII.

have been found in graves of the Second to Third Dynasties (*c.* 3000 B.C.).[1]

The object now known as *'arūset el-ḳamḥ*, 'the bride of the corn,' is depicted in several Theban tomb-chapels of the Eighteenth Dynasty,[2] and can possibly be traced back to the Old Kingdom in a different form.[3] It is stated on p. 172 that "in some parts of Egypt 'the bride of the corn' is temporarily placed on the heaps of grain

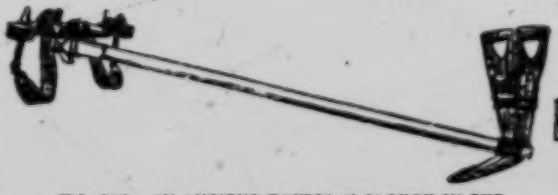

FIG. 179. AN ANCIENT EGYPTIAN PLOUGH IN THE BERLIN MUSEUM
After L. Borchardt, *Priestergräber . . . vom Totentempel des Ne-user-rē*, p. 116.

Ne-user-rē (Leipzig, 1908), pp. 165 ff.; A. Wiedemann, *Das alte Ägypten*, p. 24 and note 3.

[1] W. M. F. Petrie, *Tarkhan*, Part I, Pl. X, 6.

[2] W. S. Blackman, *Journal of Egyptian Archæology*, vol. viii, pp. 235 ff. and Pls. XXVI–XXIX.

[3] J. Capart, *La mise à mort du dieu en Égypte* (Paris, 1927).

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Ancient Egypt MR5

after the winnowing is completed, as a charm to secure a good

FIG. 180. ANCIENT SHAWĀDĪF
After A. Erman and H. Ranke, *op. cit.*, Pl. 33, Fig. 1.

harvest the following year." According to several ancient representations of winnowing this object was placed on the winnowing-floor while the winnowers were at work (Fig. 181), and an offering was laid before it consisting either of a vessel of water and dishes containing cakes, etc. (Fig. 182), or of a bowl of water only (Figs. 181 and 183).

FIG. 181. ABOVE: 'BRIDE OF THE CORN' ON THE EDGE OF THE WINNOWING-FLOOR. BELOW: SUPPLIES OF FOOD BESIDE THE THRESHING-FLOOR
After W. Wreszinski, *op. cit.*, Pl. 177.

I mention (p. 172) that gifts of the first-fruits are bestowed on the *mueddin* of the village mosque, the *summāreh*-player, the barber, and the *fuḳahā*, besides the deserving poor. This custom finds a parallel in ancient Egypt. In the

2: Blackman E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Ancient Egypt MR5

ANCIENT EGYPTIAN ANALOGIES

second of the famous contracts of Djefaiḥap engraved on the walls of his tomb-chapel at Asyūṭ the following passage occurs:

> That which he [Djefaiḥap] gave to them [the priesthood of the temple of Upwawet of Asyūṭ] in return [*i.e.*, for bread presented to his statue]

FIG. 182. AN ANCIENT 'BRIDE OF THE CORN'
After Norman de Garis Davies, *The Tomb of Nakht at Thebes*, p. 63.

> was one *ḥeḳat* measure of northern barley for every field of the endowment [*pr-ḏt*], from the firstfruits of the harvest of the nomarch's estate, just as [or in the measure which] every commoner of Asyūṭ gives of the firstfruits of his harvest, for he was the first to cause every one of his peasants to give it to this temple from the firstfruits of his field.[1]

FIG. 183. AN ANCIENT 'BRIDE OF THE CORN'
After Norman de Garis Davies, *ibid.*

The offering of the firstfruits to the *mueddin* and the *fuḳahā* is perhaps a survival of the custom referred to in the above quotation, the *mueddin*, the *fuḳahā*, and the mosque taking the place of the priests and the temple. The *fikih* in his funerary functions corresponds exactly to the ancient 'lector' (*ḫry-ḥb*).

The custom of putting loaves of bread in the heaps of wheat (p. 173) may be a survival of the offerings originally made to the

[1] G. A. Reisner, *Journal of Egyptian Archaeology*, vol. v, p. 83; J. H. Breasted, *Ancient Records*, vol. i, § 546.

2: Black[illegible]an E-5 (1920-1926) 1927
MR13 Fellahin MR13
Upper Egypt
Ancient Egypt MR5

be noted in this connexion that the determinatives of the ancient Egyptian word *hmt*, the 'fee' paid to a ferryman, are those regularly affixed to words signifying foodstuffs—*i.e.*, an oval roll of bread above the three plural strokes, or a conical loaf and a jar of beer above a circular loaf.[1]

The wooden fork used nowadays on the threshing-floor and for winnowing (p. 173 and Fig. 105) is exactly like the ancient one (Fig. 185). Also much the same sort of iron sickle as the modern one (p. 173, Fig. 101) was already in use in the Roman period

FIG. 185. ANCIENT HARVESTING-FORKS
After W. Wreszinski, *op. cit.*, Pl. 134.

(Fig. 186). At an earlier date the sickle consisted of a wooden body, in shape closely resembling the lower jawbone of an ox, in which flint teeth were inserted (Fig. 173).[2]

It is only necessary to read that part of chapter xiv in A. Erman and H. Ranke's *Aegypten und aegyptisches Leben im Altertum*[3] which deals with medical knowledge to see how nearly ancient and modern prescriptions and magico-medical cures are alike. Appended comments such as "Tried and true" (p. 207) find close parallels in the famous *Papyrus Ebers*.[4] In ancient as in modern times the 'physician' wrote out spells commanding a disease to depart,[5] and both adults and children were cured of sickness, or protected against both it and ghostly malice, by means of written charms

[1] See A. H. Gardiner, *Egyptian Grammar* (Oxford, 1927), pp. 515 f.
[2] See W. M. F. Petrie, *Kahun, Gurob, and Hawara* (London, 1890), p. 29; *Illahun, Kahun, and Gurob* (London, 1891), pp. 53 ff.
[3] Pp. 409 ff.; see also A. Erman, *Life in Ancient Egypt*, pp. 357 ff.
[4] A. Erman, *op. cit.*, p. 339. [5] *Ibid.*, p. 356.

178 But we must at all costs avoid here even the appearance
121 of determinism. The fellah is no more the product of the Egyptian countryside than the countryside is the product of the fellah. There is no question here of inevitability, or any determining influence. Man is free, and this freedom is to be defined as "the power of self-determination".

Man is free, and cultivation remains contingent on his will. There are infinite possibilities, among which the will of man — not of the fellah, but of his master — chooses this or that, according to circumstances. At one time, the vine was grown on Egyptian soil. Grapes make wine, and the
● 241 veto of the Koran killed the vineyards. Not long ago, vast
249 areas were planted with tobacco, but the Government has now forbidden this. Maize of American origin, and cotton, introduced in the nineteenth century, are now chief among the crops. Tomorrow some new crop may cover the fields. No law of necessity, whether of climate or soil, determines once and for all the agriculture of Egypt; much less, then, human life. At the same time the climate and vegetation of Egypt exert a characteristic influence on those who live in, and on, the country.

181 In the case of the town-dwellers and industrial workers,
183 the bond between nature and man is looser; the impress
132 of the physical environment is softened and neutralised by the
133 stronger social, civic and political influences. This makes these classes less stable, but more progressive.
121

The countryman, on the other hand, is moulded directly by the soil. Febvre justly criticises the generalisations of Ratzel and Brunhes on the influence of physical environment (*); but without granting their theories anything like universal applicability we may recognise that they do apply sufficiently to agricultural communities, and especially to the Egyptian fellaheen.

It will become clear, indeed, that the monotony, uniformity and productiveness of the Nile Valley have their exact counterpart in the characteristics of the fellah community. These two are not parallel but correlative. They meet and crystallise in a distinct manner of life, which is at once a geographical and a social phenomenon. It will also become clear that the water and mud of the Nile enter into and in great part explain the whole life of the fellah, his work and his home, his body and his soul, and impart

since the last phase of the quaternary period, over the flat edges of its bed, and spread out in ever widening layers across its mouth, encroaching on the sea (*).

These deposits have created on top of the granite, limestone or sand a layer of black earth, varying in depth between 10 to 30 metres in different regions.

The Nile soil which thus covers the valley consists of both coarse and colloidal clay, with an admixture of various salts. It is an amalgam of finely ground particles carried down by the Blue and White Niles. The composition of this arable soil, unlike that of most agricultural countries, is substantially the same everywhere. It has a high mineral content, which, as we shall see later, has an important influence on the food of the fellah.

This soil, once deposited, is continually irrigated and enriched by the Nile, by means of either flooding or canalisation, but always under the control of man. The time-honoured system of basin irrigation, still in use over a million feddans, consists in discharging the water at flood-time through small channels on to *hôds* — vast areas of land surrounded by dykes. The land absorbs water until it is saturated; then the remainder slowly drains away, after depositing a layer of the fine silt with which the water was laden before flowing into the basins. Each feddan thus receives about 7,000 cubic metres of water, which leave 8 or 9 tons of silt. Immediately after the water is drained off (about November) the crops are sown. They are then left to ripen until harvest-time without needing any further irrigation. The land then lies fallow till the next flood. However, many of those who farm basin land, in order to produce a summer as well as a winter crop, make use of the underground water by means of pumps, which are now so common that they have modified the system of cultivation in these districts.

The perennial system of irrigation, introduced in 1840, and made possible through engineering works, of which the most notable is the Aswan Dam, now covers all the Delta and the greater part of Upper Egypt (4,300,000 feddans). The Nile no longer completely floods the land. Its water is stored in reservoirs, then distributed through barrages into a network of canals which water the land throughout the year.

241 Thus at High Nile (August to October) the fields are
132 no longer flooded, but only irrigated, and bear the crops called *nfli*. When the flood is over, and the level of the flood is falling (November to April), the land, being still moist, receives sufficient water for the winter crop (*shetwi*). At Low Nile (April to July) the reservoirs are gradually emptied to provide water for ripening a third crop, called the summer crop (*sefi*).

132 To be fruitful, the land needs not only water, but also
134 air. The sun, by the vertical cracks its summer heat makes in the level soil, plays its part in reviving the fallow land. It removes excess salt and mellows the soil by letting the air penetrate deeply into the earth, so that the land is dehydrated and renewed (¹).

We thus see the Nile, helped by the sun, already at work preparing and cultivating the land, and so determining the fellah's physical environment, the living Egypt.

133 In fact, wherever the Nile does not penetrate, either from above or below, the desert begins abruptly, without any intermediate zone. The conventional colourings of maps, which show Egypt as a thin green strip across a great dun-coloured space, correspond exactly with reality. From the top of the Great Pyramid near Cairo, or from the hills of the Sa'îd (²), one is struck, whichever way one looks, by the clear line of demarcation where human labour and habitation stop short. Between the cliffs of the Libyan and Arabian deserts lies a level valley, 650 miles in length. Its width is less than a mile at Wadi-Halfa (³), 3 miles at Edfu, about 8 between Luxor and Assiut, where it narrows again, and 15 at Beni-Suef, whence a branch goes off westward to the Fayûm. From Cairo it spreads out fanwise to form a coast-line of 160 miles at the north of the Delta. In all there are some 12,000 square miles of good land, lying in the midst of about 400,000 square miles of barren sand. This 3 % of the whole area represents the living and productive Egypt.

Its shape is given to it by the Nile. It looks like a giant lotus, whose roots, the White and the Blue Nile, are planted in the heart of Africa, in the high mountains of Abyssinia and the great lakes of the Congo. From Khartoum the sap rises along a single stem, which pushes into Egypt at Wadi-Halfa, shows signs of green at Aswan, bears a single leaf

(the Fayûm) near Beni-Suef, flowers at Cairo, and spreads out into a great head of blossom on the Rosetta and Damietta branches, till it touches the Mediterranean across a fringe of lakes — Mariut, Edku, Borollos and Manzala — stretching from West to East across the mouths of the river. 133

Closed in by its two deserts, far across which lie the political frontiers, the Nile Valley is of an essentially agricultural nature. Its life has but one colour, the green of perpetual crops. They spread over a vast, unvarying countryside, sprinkled here and there with towns and villages. 133 137

A man standing in a maize field at harvest time can see neither the Nile, nor the vast network of canals and drains, nor the low clusters of houses, and is able to trace the railway line only by the telegraph poles. As on the well-watered plains of Holland and Russia — though under a rainless sky — the fields and crops are all in all. 133 241

A traveller in the Valley of the Nile cannot fail to be impressed by the agricultural nature of the whole countryside. Whether he goes north from Cairo to Alexandria, or south towards Khartoum, whether he travels by rail, road or river, in the Delta or in the Sa'id, in summer or in winter, his impression will be the same. But once he leaves the Nile on the way to Suez, or to the Coptic monasteries of Wadi-Natroun, the desert engulfs him on every side. He seems in a different country. On the West he will find the oases of Kharga, Dakhla, Farafra and Siwa, with their Bedouin and their bazaars. On the East, towards the Red Sea coast, he will meet with oil-wells and phosphate mines, and the families of Upper Egyptian fellaheen who have gone to work there. In this strange, denuded Egypt, which is neither Upper nor Lower Egypt, there are only these uprooted exiles to remind the traveller of the familiar countryside which for him, as for nine tenths of the Egyptians themselves, is the land of Egypt. [166 464]

2.— Ethnology.

Neither the water nor the silt of the Nile, however, nor the burning rays of the sun could have created, or maintained until today, the agricultural land of Egypt, without the aid of a population itself fundamentally agricultural. 162 241

3: Ayrout M-5 (ca. 1935) 1945
MR13 Fellahin MR13
Egypt MR1

F
162 Here is a clear instance of correspondence between
241 human concentration and physical productivity. Here, more than anywhere else, irrigation and population are co-extensive.

E
F
161
175 The number of inhabitants must have varied in the course of earlier ages, but definite figures will never be known. However, prehistoric discoveries give early indications of density (*). In the Pharaonic period the population probably fluctuated between seven millions, the figure given by Diodorus Siculus(**), and ten millions. The writers of Christian Egypt speak of twenty millions. At the time of the French expedition, after centuries of Arab and Turkish rule, the figure fell to some two and a half millions. Jomard, basing his estimate on the number of villages and the level of production, thinks such a figure quite normal.

Later statistics were to show, however, that it was remarkably low. An equilibrium which had been destroyed by factors other than those of geography — massacres, plague and famine (**)—was not long in re-establishing itself. As Vidal de la Blache justly remarks about Egypt, 'ancient civilisations derive a remarkable elasticity from the fact that they are based on what changes least, the productive and recuperative quality of the soil.'

E
F
161
511 In point of fact, once order and public security were re-established, the progressive introduction of perennial irrigation and of exportable crops, by developing the possibilities of the land, necessitated a constantly growing labour force and brought about an increase of population.

E
F
161
162 The first detailed census, in 1873, showed 5,250,000 inhabitants. Half a century later, in 1927, the number had risen to 14,217,864. In 1937 it stood at 15,904,525. This population remains closely packed on the black soil upon which it depends. Ninety-three per cent. of the Egyptians, that is to say more than fifteen million souls, dwell in the basin of the Nile, which represents only a thirtieth of the whole territory. In this narrow area the towns, overcrowded and few in number, contain scarcely more than three million inhabitants. The rest of the Egyptians are countryfolk, and almost all workers on the land, fellaheen. According to official records 62% of the men of the country work in the fields. Adding to these the women and children, who must everywhere be taken into account as active workers,

we shall probably be rather under- than overstating the case if we reckon the agricultural population, which is the subject of our enquiries, at twelve million souls.

Moreover, this population is increasing. Less rapidly, it is true, than that of Cairo, where between 1917 and 1927 the increase was 28%, while in the country it scarcely exceeded 10%. But in the city the rise is largely due to an influx from abroad and from the countryside; in the country it is dependent on the birthrate alone.

Thus the rural density of population is about 1300 persons to the square mile (*). Such a situation is probably without parallel except in Tonkin, where six million peasants live on 5150 square miles, giving a density of 1165, or 93% of the population on 16% of the territory. Of this mass three millions live at a density of 1400, and more than one and a half millions at 2800 (*).

The density of population in the Nile Valley is explained by the concurrence of all the conditions, geographic, economic and social, which favour a high birthrate. The climate is warm, the valley itself is flat, uniform, tractable and strictly defined. There are plentiful food crops which can provide locally for a numerous population; maize, corn, rice, lentils and beans grow throughout the country.

The cultivation of cotton necessitates a settled concentration of workers, whose labour may bring considerable profit. The perennial irrigation system on the one hand requires many labourers, and on the other hand, by raising the productivity of the soil, makes it possible for more people to live on it. The soil is divided into many small properties, either rented or privately owned. These small holdings only accentuate the overcrowding which causes them. Help is wanted as cheap as possible; children can provide it. Thus the fellah is forced by the exigencies of the land to have children, and as many as possible. This for him is the meaning of marriage and the family. Where all these conditions exist together, as in the province of Menoufiya in the Upper Delta, where the land has been longest cultivated and irrigated, where cotton is the chief crop and small holdings are the most numerous, a density of over 2,000 to the square mile is to be found (*).

Where favourable conditions are fewer the density grows less. This is so in the South, in the districts above

and below the cataract of Aswan, where the land is less rich and is still under the system of basin irrigation and large, semi-feudal estates. In the province of Aswan there are only 305,195 inhabitants to 224,000 feddans. This gives about 800 to the square mile. But the lowest rural density occurs in the lake region of the North, where the lands are low-lying, salt and marshy. Near Kafr-el-Dawâr, not far from Alexandria, it is only about 500 to the square mile.

This uneven distribution, though it may be explained by physical conditions, is not finally determined by them. In the outlying districts which we have just mentioned the full capacity of the land is far from being reached.

There is still another factor of prime importance to be considered — habit. Time as well as place has its influence on human psychology. The fellah has a stable, unadventurous disposition. He stays tied to his native village, which represents for him the security of both past and present. Unlike the Palestinian or Syrian peasant, he never emigrates to try his luck. He will never even take a job in another province where there is a demand for labour, unless he is pressed into it by force. If he does leave his native *balad*, it will not be for another country district, which could never be as good as his own, or afford him a better life or income; he will make for the town, and by preference for Cairo. So migration is comparatively rare, and owners of newly reclaimed land (*barâri*) find great difficulty in securing sufficient hands, despite the good pay and housing they offer.

Rural, gregarious, stay-at-home; such is the Egyptian people in its dominant characteristics. These qualities have contributed as much as the needs and possibilities of the soil to cause the over-population of the country.

Over-population, however, is a relative term, and there are a number of factors to be taken into account.

The adoption of perennial irrigation has made possible a more intensive exploitation of the most fertile land. Thus the area actually cultivated remained more or less stable between 1930 and 1940 at an average of 5,353,500 feddans; however, since much of this land produced two crops in the course of a year, the crop area, as it is called, rose to close on eight and a half million feddans.

3: Ayrout M-5 (ca. 1935) 1945
MR13 Fellahin MR13

At the same time the use of chemical fertilisers and the improvement of the drainage system raised the average yield per feddan. Between 1932 and 1939 the yield of all crops showed a distinct tendency to rise, only to fall again sharply in 1941, after imports of fertilisers had been drastically cut down.

Again, although the area actually cultivated averaged only 5,353,500 feddans between 1930 and 1940, there are in all 7,100,000 feddans which are classed as cultivable. The surplus of 1,750,000 feddans consists largely, no doubt, of inferior land, but if energetic measures were taken a great deal of it could be worked economically. Even should the limit be reached there still remains the Sudan. This vast and under-populated country is really an extension of Upper Egypt, which it resembles.

If present trends continue, however, these favourable factors are likely soon to be neutralised by the constant increase of the fellah population. Although the birthrate shows a tendency to fall, the gross rate of increase rose from an average of 168,000 a year between 1927 and 1937 to about 250,000 a year between 1937 and 1941.

Year	Population	Increase	Percentage Increase	Mean Annual Percentage Increase
1897	9,714,525	2,910,504	—	—
1907	11,287,359	1,572,834	16,2	1,62
1917	12,750,918	1,463,559	13,0	1,3
1927	14,217,864	1,466,946	11,5	1,25
1937	15.932,694	1,714,830	12,1	1,21

It is clear that sooner or later, if the present standard of living of the fellaheen is to be maintained, let alone raised, the problem of over-population will become acute. The palliatives we have mentioned will not suffice for long. More drastic measures will have to be taken: on the one hand the industrialisation of the country, to create a better balance between industry and agriculture and to raise the general level of production; and on the other hand a policy of reallotment of land, permitting more intensive cultivation by smallholders, and better distribution of the products. The consideration of such remedies, however, lies beyond the scope of this book.

132 He is exposed to the elements at a mean temperature
461 of 80°F in summer and 53°F in winter; he works barefoot and bare-headed. His labour is all muscular, and apart from his hands he uses only a few primitive implements, which, however, owing to the quality of the Egyptian soil and the multitude of manual labourers, are quite adequate.

PREPARATION OF THE SOIL

412 He uses the *fass* with great dexterity for a hundred different tasks, to turn and break the clods of earth, to dig furrows and till the land. The *fass* is a big tool, like a hoe, but heavy and solid. Its front part being fairly wide, it also serves as a spade. Even the poorest of labourers owns a *fass*; it is an indispensable addition to his own strong arm.

407 It may be said that every field in Egypt is tilled by hand,
[92] even when the fellah works with a plough, for the Egyptian plough is more of a tool than a machine, though it weighs 100 lb., and is carried to and from the field on donkey-back.

This is *el mihrat*, the Arab plough without wheels or breast, which is found in Palestine, in Syria and throughout North Africa. It consists of a wooden frame tipped with a flat, ogival share about 10 ins. long, and a shaft about 11 feet long, to which the draught animals are attached by a straight yoke pressing not on the forehead, as in Europe, but on the
231 withers. The draught-animals may be two *gamoossas*,
241 the smallholder's *gamoossa* and a donkey, or two animals hired for the occasion — sometimes even a camel and a donkey together.

241 The ploughman drives the share in by pressing on the
461 single handle, and guides the animals as they move by hand and voice, without as a rule using either bridle or whip. In this way he can till from one third to half a feddan a day. If he is an owner his beasts will be better fed, and he will be able to till as much as three quarters of a feddan in a day. The time employed in ploughing a field is from ten to twenty-five days a year. Except in the districts under basin irrigation this work can be carried on at any season.

407 In the concluding chapter of their study of Egyptian
241 ploughing[20] Audebeau and Mosseri write: 'The Egyptian plough is the typical implement of areas where it is only necessary to scratch the surface in order to bury the seed

and allow it to germinate before the top layer dries. This plough is also appropriate when as a result of a limited water supply the task is to prevent a premature drying-out of the soil. None of the imported ploughs tested hitherto has proved genuinely superior to the local plough, when mechanical, agricultural and economic factors are taken into account.'

The Egyptian plough is the resultant of two interacting factors, the nature of the soil and the means of the fellah (it costs no more than P.T. 100). Its mechanism is so simple that it does not have the effect of dispensing with the ploughman's effort or of putting a distance between him and his furrow; so contact between man and soil remains close.

To level down the tops of the furrows and break up the clods of earth the fellah uses a *zahhâfa*. This is nothing but a rough beam of wood, or the trunk of a palm tree, about twelve feet long, on which the fellah stands while it is pulled by a pair of draught-animals. This very primitive instrument thus acts both as roller and harrow, and is sometimes used also to cover in the seed sown by hand. The *zahhâfa* is used after ploughing, and about four feddans can be treated in a day.

To level the land, which since it is artificially irrigated must be as even as possible, the fellah uses his *kassâbia*, a sort of coffer weighing about 120 lbs and costing about 75 piastres. It has two sides, is open along the front, and is held by two handles, which the fellah raises in order to scrape off the mounds and fill up the hollows with the earth thus picked up.

The *gamoossa* and the donkey have often been mentioned, and will continue to be, for they are the two chief aids of the fellah, and are well adapted both to his needs and to Egyptian conditions.

The *gamoossa*, the poor man's cow, is a mud-coloured buffalo, stronger than the ox, and extremely resistant to disease. It must have more fodder than any other draught animal. On account of its great usefulness the fellah takes more care of it than he does of himself, which is not saying much.

If properly fed, the *gamoossa* gives more milk than any cow in Egypt. In winter and spring it needs to graze

231 on about 18 *kirats* of *berseem*, while in summer it consumes daily about 10 or 12 okes of fodder (*tibn*) consisting of straw, bean-stalks and cotton-seed cake. Provided its moist diet (containing 87% water) is not changed too suddenly to the dry diet of the five summer months, it will give about four thousand *rotls* of milk a year to the cow's two thousand. [26a] This milk is richer than cow's milk, containing 7% of fatty substances as against 3-5%. The meat of the *gamoosa*, also, is better than veal.

231 241 All these advantages would make cattle-rearing and dairy-farming very profitable in Egypt, but the fellah does not go in for cattle-rearing ; it is not to his interest to fatten his *gamoosa*, which can tackle the work of tillage and water-raising — and these are his chief needs — on a modicum of fodder. The cost of a *gamoosa* is between L.E. 12 and L.E. 25.

231 The Egyptian donkey is a much hardier beast than the horse, as the *gamoosa* is than the cow. It is also an economical animal to keep, having no unusual needs. In the Delta the commonest is the *baladi* donkey, generally black, which stands about 40 inches high, carries up to 200 lbs. and costs from L.E. 2 to L.E. 3. The white or grey ass of Upper Egypt, called 'Syrian', the kind which tourists ride around the Pyramids, is taller and more handsome. It stands up to four feet high and may be worth as much as L.E. 20.

The camel and the mule, being less adaptable, are little used by the fellaheen.

THE WORK OF IRRIGATION

241 312 When the soil has been prepared, the next business of the fellah is to water and fertilise it. He does not have to wait anxiously for rain, like the peasant of Transjordan. The water is beside him in the river or the canal, but it has to be raised and distributed. Until he has irrigated his furrows, the fellah cannot rest.

312 Like the arteries and veins of a mighty body, 12,000 miles of canals distribute the waters of the Nile in due proportion to all the crops. 5,000 miles of other canals drain the surplus water back into the Nile, or into the lakes.

At the season called the *gaffaf*, in January [21], double 312
angs are to be seen working with their hands, one on the [805]
ank, the other down in the canal bed. Those below pull
p the clods of mud and weeds and throw them to those
n the bank, who catch them and fling them yet further
side.

In order that this canal system may do its work and the 312
ater reach the field, the fellah has to make a network of 461
nnels which will bring the water to his crops. He is cease- 241
sly occupied in cleaning and maintaining these smaller
annels.

When the turn comes for his field to receive its water—
ve days out of ten in flood time, and six days out of eighteen
low Nile — the fellah stays up night after night in order
lose none of his water ration.

When the water level is high he watches it flow through
e channels, and has only to clear away any obstacles.
But the water is at low level for 50 to 200 days a year, accord-
ng to the different regions, and then he has to raise it by
and. Here again he has no modern machinery, but uses the
mplest apparatus, as old as the history of Egypt.

When the water level is only about two feet below his
ld, he has two ways of raising it to the thirsty soil. The
st way has now become almost obsolete.

FIRST METHOD

Two men stand face to face on a ledge cut in the bank 241
water level. With four hempen or palm-fibre ropes they 312
pport a wide shallow vessel about 18 ins. in diameter and
ins. deep. It is usually made of light basket-work and
ore or less waterproof.

Their first movement is to bend slightly down, turning
wards the water, then dip their basket and fill it. With a
cond movement they straighten themselves, turn to the
ld, and, raising the vessel by a simultaneous movement of
eir forearms, empty it out into the mouth of the irrigation
annel.

This work, which is performed with clockwork regularity,
ings into play mainly the muscles of the trunk and the
ms. It is very fatiguing and the strongest men cannot
ar it for more than three hours at a time. Accordingly [461]
o pairs work turn and turn about.

241 312 It has been calculated that by this method little more than 200 cubic feet of water, or enough for about one acre, can be raised in a day of twelve hours. Such a yield bears no reasonable proportion to the effort exerted, but the instrument is extremely cheap. As long as poverty remains, such methods will continue in use.

This method is called *nattâla*. It was already known to the fellaheen of Ancient Egypt (22) and is used by Japanese peasants, for example on Shikoku.

Second Method

One or two men crouch at the water's edge, turning and turning the crank handle of a wooden cylinder, which reaches from water level to the mouth of the runnel. The water rises spirally inside this cylinder, which is about 18 ins. across. This is the *tambour* or Archimedean screw, a wooden cylinder hooped with iron and about six or nine feet in length, according as it is turned by one or two men. The spiral is fixed between the inside wall and an iron axis, one end of which is bent into a crank, while the other turns on a stake fixed under water.

The *tambour* can irrigate two or three times as much as a *nattâla*, but it costs more and is heavier to work. Moreover, since it requires the continual use of the forearm, it is very much more tiring. Nevertheless it is still much in use, and may frequently be seen.

These two kinds of water-lifting machinery are practicable when the water level is not very low, but sometimes water has to be sought three, six or even thirty feet below the level of the field to be irrigated.

The easiest thing would be to instal a pumping engine. There are many of these on the large estates, but none on small properties; for as the fellaheen are numerous and conservative, poor in money and rich in time, this "convenience" does not commend itself to them. They solved the watering problem ages ago in a way which matches their means, and they feel no need to desert their present system for one which may possibly be better, but which is as yet new and untried.

181 183

To raise water from a depth of more than three feet the fellah uses a method as primitive as it is simple. He plants

in the earth, at the water's edge, two stakes about five feet high and a yard apart. When wood is scarce, these two pillars are made of cane or maize stalks daubed over with mud. They are joined at the top by a horizontal bar, like the crossbar of a goalpost. At the middle of this crossbar is balanced a lever more or less straight and about ten feet long. Its shorter arm bears a heavy rock or a great lump of dried mud, and at the end of the longer arm hang two or three yards of rope carrying a bucket, leather basket or old petrol can. This apparatus is placed in the same axis as the channel to be filled. 241 312

The fellah stands on a platform made halfway up the bank and pulls down the balanced pole until the bucket dips into the water and fills itself. A slight upward push, helped by the counterweight, brings it just above the runnel, into which it is emptied. All these movements are slow and rhythmic, sometimes accompanied by a droning chant. Their variety might seem to lessen the effort, and yet the fellah finds this task more gruelling than any other. This is the impression one would gather from the melancholy tone of his chant, and it is confirmed by those who have had the patience to collect the words of such songs (23). [533]

By the end of a twelve-hour day two fellaheen working alternately in two- or three-hour shifts may succeed in watering about 1/8 acre of cultivated land. One apparatus of this kind suffices for the cultivation of a feddan. The water may be taken from a well or a pool.

This method is widespread amongst the poor peasantry of the East and Far East, especially the Arabs. But the system originated in Egypt. It may be seen depicted on the oldest bas-reliefs, and nowhere else is it so much in use.

The *shadûf*, as it is called, may be used in combination. In the region of Qena and Dendera, in Upper Egypt, you may still see sets of two, three or four of these apparatus used together or in series, to raise the water from a depth. But when the level is very low the *saqia* is more often used.

The *saqia* is really a machine, though clumsy and primitive. It is made from acacia or sycamore wood and driven not by manpower but by beasts.

The great horizontal wheel, turned anti-clockwise by a harnessed ox or donkey, engages with its rough cogs a vertical

241 312 wheel carrying a long chain of pots which move mouth downward into the water to fill, and then tip out their water into the channel as they arrive at the top. The *saqia* and the Archimedean screw have been continuously in use since the times of the Ptolemies.

[471 476] A *saqia*, costing as it does from L.E. 10 to L.E. 20, according to its depth, is often the common property of several families. Each family in turn brings its own beast to draw water, and the work goes on without any break. One feddan can be irrigated in this way in 24 hours, and one *saqia* can supply five feddans.

The fellah's task is to goad the animal, to watch the turning of the wheel and the flow of water, and to avoid wastage on the way to the field, which may be anything up to three furlongs away. Usually an old man or a child is [887 857] left in charge, and as the ungreased wheels continue their ceaseless groaning, the child hums for joy at every movement he makes.

The *saqia*, with variations such as the *taboot* or water-wheel, is found in its thousands all over Egypt. Under the name of *noria* it is used by peasants in Syria, North Africa, Spain, Italy and Greece.

It is clear that the business of watering makes very great demands on the fellah's energy and endurance. Yet he is not satisfied with the strict minimum, and is often accused of giving the soil too much water.

[242] He does not understand that frequent and copious watering raises the underground water-level, and that when this reaches four feet below the surface it stifles the roots and makes the plants turn yellow. He only knows the evil effects of drought. So when his turn comes he never wastes a moment, but gives his crop as much water as he can. To him, lack of water means a failure or at least a low crop; and that means poverty. There is no question that innumerable troubles and anxieties beset the fellah in his efforts to get the water which he needs for his little plot. The overseers of irrigation in the provinces and the watchmen whose [656] duty it is to see to the opening of sluices often disregard the orders and regulations which assure a just supply. In this matter favouritism, injustice and even personal spite are often indulged in with impunity.

MANURING

Watering is not enough; the soil needs nourishment to make it productive. The fellah knows only too well that the fertilising powers of the soil must be revived. Together with his wife and children he does his best to find, at as little expense as possible, as much animal or chemical manure as he can.

Pigeon droppings, silt cleaned out of canals and mixed with grass, and, above all, soil impregnated with stable-dung (*sebâkh bàladi*), (but never human excrement), village débris and age-old dust, all contribute nitrogen to his field. The rubbish mounds (*koms*) of dead cities become quarries to which the fellah turns for his manure. This *sebakh kufri*, as it is called, is found in varying qualities all over Egypt; but nowadays most of what is left is of poor quality.

In the cliffs of Upper Egypt there is also a kind of sand (*marog*) and a clay (*tafla*) which serve as a poor manure, and need much labour to bring to the fields. But all these manures are lacking in salt content. The used-up soil needs artificial remedies. Despite the fellah's hidebound methods his sympathy with the soil has helped him to understand its need. Since the early years of this century, good *sebâkh kufri* having become almost unobtainable, he has begun to use chemical manures (*semàd*). Before the present war (1939), Egypt used to import more than half a million tons of natural nitrates from Chile, the earliest known source, and synthetic nitrates from Germany and England. These may be used on all except leguminous crops (berseem, fenugreek, and beans), which need phosphates.

The distribution of *semàd* is most efficiently organised by the *Crédit Agricole d'Egypte*, which sells it by the sack on credit, and also by the Royal Agricultural Society and the big import firms. There are about 2,000 depots spread all over the country. The chief customers are the big landowners and the State Domains, which advance to the owners and tenant farmers the amount required for each holding against part of the crop. Before the war a sack of 100 kilograms, delivered to the village, used to cost from 65 to 70 piastres. Corn crops require the most expensive fertilisers, but the cheapest qualities are good enough for *berseem*.

241 This 'leaven of the land' has still to be put to the soil.
242 Twenty times a day the donkey, laden with great panniers
292 or sacks and driven by the fellah's son, carries the manure
293 to the field and goes back to reload. There are no carts or barrows for this work, and the distances are often great. The farmer lays down the manure generously, whether it be natural humus or chemical fertiliser, and packs it by hand round the plant to be encouraged.

Getting in the Crops

461 All this attention is paid to the soil in order that it may yield its fruits. It follows that the fellah's work must continue from seed-time till harvest. The days are gone when he could go away after sowing and return in a few months' time to gather the crop. The struggle for life has become continuous and unrelenting. Since the introduction of cotton and the establishment of porennial irrigation, the fellah has no slack season and is always tending some crop or other.

241 The crops follow a system of rotation covering a period
805 of two or three years. Taking cotton first, the succession
321 will be as follows:

February-October	Cotton
November-May	Wheat, berseem or barley
May-June	(Partly fallow)
June-November	Maize or rice
December-February	Berseem
April-October	Cotton
November-May	Winter cereals or berseem
May-November	Maize (or fallow)
November-March	Berseem or winter cereals
March-June	(Partly fallow)
June-October	Maize or rice
November-March	Berseem

This calendar of crop rotation is observed with but little variation everywhere in the country, according to the need and experience of the farmer. I have translated it into Gregorian months; but the fellaheen keep to the Coptic Calendar, which is based on the Nile flood and goes back to ancient times. It begins with the month of *Tût* (September), in which the Nile reaches its highest level, and divides the solar year into twelve months. There is a series of Arabic
[538] proverbs deriving originally from Pharaonic Egypt, which

assign to each month its proper task. Wheat, which at that time was the main crop, is frequently mentioned, but the new-fangled cotton not at all [14].

This same calendar also regulates the Coptic ecclesiastical year, for when Christianity came to Egypt it made no change in the existing customs. The reckoning begins from A.D. 284, the first year of Diocletian's reign, called 'The Year of the Martyrs'. In actual fact, the great persecutions took place in A.D. 304.

Moslems, on the other hand, start from the *hegira*, or Flight of the Prophet (622 A.D.), and count in lunar months.

Since 1875, Egypt has officially employed the Gregorian Calendar, which is gradually penetrating everywhere. The Government has not kept the ancient Egyptian names for the months, nor has it translated the Roman names. It has simply taken over their popular adaptations as follows: - *yanayer, febrayer, mâris, abrîl, myo, yûnyo, yûlyo, oghostos* and so on. The Ministry of Agriculture works by this calendar to the exclusion of the other two, and so, if not actually used by all the fellaheen, it is understood by most of them.

At this point it will be convenient to describe the principal crops of contemporary Egypt, which are also those at which most of the fellaheen work, namely cotton, which is the main source of the country's wealth; maize and wheat, which provide its daily bread; and *berseem*, the fodder of its cattle. Of the rest we shall say only a word or two in passing.

A. THE "GARDENING" OF THE COTTON PLANT

Cotton was not unknown to the Ancient Egyptians. Some fabrics of Pharaonic times seem to be woven of cotton thread, and Pliny mentions its use. Its development in Egypt for industrial purposes took place in the mid-nineteenth century after the experiments of Jumel. Perennial irrigation, introduced about the same time, together with the increase of the population, and the advantageous openings on the English market, very soon made cotton the principal crop of the country. The world crisis of 1930, which led to a slump in cotton, forced the Egyptian Government to restrict it to a quarter of the total cultivated area. Despite

243 Northern Delta. It occupies about 6% of the cultivated area, but its acreage depends on the height of the Nile flood, and is controlled by the Government. Thus in 1935 there were 470,375 feddans under rice, in 1937 only 240,469, and in 1939 476,454. The rice is of good quality and can be exported.

241 [262 252] Beans (*fûl*) provide fodder for draught animals, from June to December; those of the best quality, prepared with oil or fat, make a rich and popular dish.

Onions and sugar-cane are grown in Upper Egypt. Then there are barley, lentils and dates, not to mention vegetables and fruits, the cultivation of which, although confined to certain localities, increases year by year.

The fellah keeps a narrow strip or corner of his field for his own use. Here, without using any manure, he plants the vegetables appropriate to each season: *bamia* in winter, *fûl* in spring and *molokhiya* in summer. These will be mentioned again in the chapter on the fellah's food. Apart from occupying much less space than other crops, they are cultivated in much the same way as the rest.

241 463 181 Egypt is becoming a land of variety in crops, but this diversity has not involved any sort of specialisation for the fellah. He is still a manual labourer, a "Jack of all trades", and his work remains simple and monotonous. There is not enough differentiation to form specialists of any kind, nor enough uniformity to limit his work to one dull task. This means that the fellah can adapt himself to any new crop. He will never introduce a novelty himself, but will take to it if encouraged by authority, the more readily if experience proves it to pay. This has been noticeable in the case of flax.

177 242 407 Mechanical innovations, however, are a very different matter. The preceding pages will have made it clear that there is never any question of tractors, reapers or binders, let alone winnowing or threshing machines, or even cars and waggons. Such machines as these are scarcely more common today than in the past. The fellah is too poor to use them, and in any case he feels no need for any instrument which would divide him from the soil. It is true that the large estates under direct cultivation employ extremely modern machinery, which is handled by fellaheen, but this is an

the cultivator's 'capital', and constitute the normal rural unit. 594

The head of the family works full-time on the land. 594
His wife lends a hand at seed-time and harvest, rears poultry 231
at home and makes butter and cheese for sale. His children 241
look after the animals, take them to the fields or to water, 461
gather the dung, watch the *saqia* and collect manure. For five or six weeks a year they work for wages at cotton-picking, or fighting the cotton worm, or in the ginning factory. The *gamoossa* draws the plough, turns the *saqia*, treads out the corn, and produces manure (mud soaked in urine), fuel (dung and straw), and milk. The donkey transports manure, crops, and the fellah himself.

Such a rural unit is sufficient, without any outside help to cultivate five feddans.

Apart from his daily bread, or subsistence wage in the 511
strictest sense, his year's work brings the fellah in at the 434
most about L.E. 10 in cash. But his assistants are also consumers, and this money, which would otherwise be clear profit, has to be spent on such necessities as the following (pre-war prices are given) :

	P.T.
Oil for the kitchen, extra vegetables, occasional meat, sugar, tea	200
Oil or petroleum for the lamp, renewal of household articles such as plates or water-pots or apparatus such as baskets, summer forage for *gamoossa* and donkey	100
A new garment (dress or *gallabiya*) for each member of the family at time of feast	150
Expenses in time of sickness or rejoicing, or for superstitious practices, pilgrimage, or fines ..	50
Unforeseen expenses	500

In the last section, which alone presents any possibility of saving, come expenses such as those for circumcisions, funerals, marriages, or dowries, or sums paid for exemption from military service. There is always one or more of these to pay for, and often enough the budget shows a deficit.

In estimating the income L.E. 10 was given as a maximum. For these expenses L.E. 10 is a minimum. That is

up and is transmitted in water and sodden ground, in the stagnant village ponds, and, since the development of perennial irrigation, in the standing water of runnels and badly levelled canals. /164

Bilharzia is not in itself a serious disease. But, beginning with the passing of blood in the urine, it often develops, through lack of attention, into complications such as the stone, fistula, and ulceration of the penis. The infection may reach the kidneys, the liver and even the eyes. Above all, it lasts for 18 or 20 years. 90% of the male fellaheen are affected by it and become accustomed to passing blood and feeling continually below par.

Bilharzia is transmitted through urine and water; hookworm through earth and excrement. Like bilharzia, hookworm is a collective disease, a permanent epidemic, and is introduced into the system by a parasite which passes through the skin. Ankylostomiasis is less widespread than bilharzia, but more dangerous, since it consumes the red corpuscles of the blood (42).

As the fellaheen never make use of human dung, and have never learnt the use of latrines, they relieve themselves no matter where. If they are already infected with the worm, every such place is a new source of danger to their fellows, who walk barefoot or lie down heedlessly on the ground. The worm can move several feet in the darkness; it settles in damp soil, whence it passes through the skin to the intestines. /514 /164 [24]

You may see countless men and women in the prime of life who are stricken with this disease, their faces puffy and lifeless with its ravages. Neither their vigorous constitution, their youth, nor the treatment they receive has been able to save them. /164

Malaria, spread by the ricefields and *birkas*, affects 65% of the fellaheen, and in some villages East of the Delta as many as 90%.

What makes these three diseases so alarming is not so much their inherent seriousness as their constantly widening extent, and the way in which the fellaheen themselves by their work and their manner of life contribute unconsciously to the perpetuation of the evil. It should also be remarked that the Government's measures to combat these diseases have not as yet had very much effect.

Greek, not satisfied with building good houses of red brick and concrete at L.E. 120 each, has arranged for a dentist and a doctor to come every week from the town. He has established a model school, and, best of all, has engaged an assistant for social work. This young Egyptian woman, the first to hold a diploma from the Alexandria School of Social Service, lives not in the owner's villa or the *nâzer's* house but among the fellaheen and close to the school, in a little room which she has fitted up charmingly. At 8 a.m. she opens her dispensary, and at 9 a.m. pays a medical visit to the school. Then she makes a round of the houses, gently discouraging dirt and disorder. She keeps a card-index of each family, and records its progress. She brings the girls together for lessons in child-welfare and sewing, and in the evening assembles the men to tell them stories and teach them how to amuse themselves in their spare time.

At the end of the first year, thanks to the fact that this service was continuous and close at hand, the women of the *'ezba* were washing themselves once a week, though they used only to take a bath once a year. This is because Doreyya did not make speeches to them about bath-tubs and shower-baths, but simply used what every peasant woman has at hand in her home, the *tisht*, the *halla* and the *kûz*.

Then there is the earlier example of a remarkable *ab'adiya* (isolated farm) in the *mârkuz* of Simbellawain. This 400-feddan estate, worked by direct cultivation, has been made by its *nâzer*, an Alsatian of good peasant stock who has been living and working there for twenty-seven years, into a paradise of order and health. The fellaheen are lodged in thirty-six small houses varying in size according to the number of children. They are built of red brick, with wooden roofs. The inside is newly white-washed every year. Nothing is kept on the roof, but each family has an adjoining patch of land, defined by an imaginary line, where dry brushwood and manure are heaped. Nobody encroaches on another's space. The labourers are paid three and a half to four piastres more than on neighbouring estates. They are each allowed one or two feddans for their requirements of maize or berseem, and almost every family owns a donkey and a goat, and either a calf or a *gamoossa*. Once a year everyone receives a new garment at the owner's

39. *T.*—This is not quite true. Fellaheen are frequently to be seen in the Nile and in the canals, swimming and splashing about for pleasure after a hot day's work. [113 515 526]

40. *T.*—In 1943 the cheaper cotton stuffs were selling at a controlled price of P.T. 6 a metre, and a tailor would ask at least 15 piastres for the work. [463 435]

41. *T.*—At Akhmîm and Nagada in Upper Egypt a considerable weaving-industry still flourishes. The latter has a considerable trade with the Sudan. [288]

42. Dr. Theodore Bilharz (d. 1862) was a German lecturer at the Cairo School of Medicine. In 1858 he solved the mystery of this endemic disease by discovering the parasite that causes it, and thus made attack upon it possible. [744]

43. Department of Public Health : REPORTS AND NOTES ON ANKYLOSTOMIASIS AND BILHARZIASIS IN EGYPT: Government Press, Cairo, 1924,

This work contains a complete bibliography on the two diseases, with an account of their ravages in various villages of Egypt, and of the Government's attempts to fight them.

44. Ibnet ish-Shaty' : EL-RIF EL MASRI (THE EGYPTIAN COUNTRYSIDE), p. 125.

45. In 1935 Egypt imported 7,888 tons of coffee beans from Java, Santos and Yemen. [439]

46. See the ANNUAL REPORT for 1938 of the Central Bureau of Information on Narcotics. However, in a technical essay in the REVUE DES QUESTIONS SOCIALES (July 1940, pp. 94-106) entitled IS BLACK TEA HARMFUL TO THE HEALTH AND WORK OF THE PEASANTRY? the author (who remains anonymous) feels justified in giving a negative answer. [272]

47. The famous Egyptian cigarettes are all made of imported tobacco. The intention was to avoid the danger of hasheesh as well as to gratify the Turkish Government. (The smoking of very cheap cigarettes has now become extremely common among the fellaheen. - *T.*, 1945.) [276]

48. BAMIA and MOLOKHIA are two mucilaginous plants. The former, known in British colonies as OKRA, is [241 262]

241 262 HIBISCUS ESCULENTUS, Abu-l-'Abbas el Nabati, who visited Egypt in 1216, gives a clear description of BAMIA, which is cooked in salted water. MOLOKHIYA, TORCHORUS OITTORIUS, or Jews Mallow, is chopped fine [252] and cooked in oil to make a green, sticky soup. Both vegetables were known to the ancient Egyptians.

113 49. The figures are : Mgo 1.988, Ca 0.284, K 02.886. See P. Schrumpf-Pierron, LA TENEUR EN MINÉRAUX DE LA NOURRITURE DU FELLAH, in BULLETIN DE L'INSTITUT D'EGYPTE, Cairo, 1932, pp. 153-75.

50. *T.*—See on this subject J. W. McPherson, THE MOULEDS OF EGYPT, Cairo, 1942.

51. See article on SURVIVANCES EGYPTIENNES by 'Abbas Bayoumi, on pp. 279-87 of the BULLETIN OF THE ROYAL GEOGRAPHICAL SOCIETY, which contains a comparison of magical texts.

51a. See Appendix A.

52. LES SURVIVANCES DE L'EGYPTE ANTIQUE DANS LE FOLKLORE EGYPTIEN MODERNE : Bosc et Riou, Lyons, 1929.

53. See note 50, also Elie Sidawy, LES FOIRES OU MOULEDS DE L'ISLAM : REVUE DU MONDE EGYPTIEN, 1921.

54. The name means "Breathing the Freshness". This [527] very ancient Spring feast falls on the Coptic Easter Monday and is always a public holiday.

55. The last three are called HALAWA SIMSIMIYA, HOMMOS and FUL SUDANY.

56. According to 1939 statistics more than 60% of the [696] crimes remain unpunished, the culprits having eluded discovery.

See LA CRIMINALITÉ EN PROVINCE, by Muhammad Mustafa el-Kolaly, in REVUE DES QUESTIONS SOCIALES, July 1940, pp. 20-29.

57. The INDEX TO PLACE - NAMES (Egyptian Government Press, Cairo, 1932) gives 14,166. Among them are 7,800 with the prefix 'EZBA, 150 with MIT, 180 with NAZLA, 933 with KAFR and 1436 with NAG'. These prefixes recall their origin. There are barely 4,000 actual villages (nahya).

58. See Lozach and Hug: L'HABITAT RURAL EN EGYPTE: Cairo, 1930.

power is given to him he imposes on simpletons by various tricks until he steals whatever they possess. You even see him in a court of justice looking innocent and pitied by men just because of his influence over them.

The evil magnetic electricity, which we name *envy*, directs itself by way of man's senses. And as it effects the sense of sight, so also sometimes touch, smell and hearing.

One of my acquaintances said to me that the *Faḳīh*[1] of their village was " envying " children by staring at them, and whenever the envier directed his gaze upon the envied one in the moment of excitement his poison affected that current and weakened the life movement in animals and plants, and they were wasted and lost. And in proportion to the power of the envier in overcoming the power of the envied, so is the strength or weakness of the danger, and there results a slight or a severe illness, or death, or the snapping of trees, or the destruction of lofty palaces.

A reliable person has related that there was a man, named al-Safti, in the village of Dafrawi in the Province of Buhaira, twenty years ago, who was an evil-doer. The people of that district knew this. One of his atrocities was that when he was sitting with a company of evil companions, one day, in front of his house, there passed by him a number of Gypsies (*Ghagar*) driving camels to market. He bargained with them for a camel, but they did not accept the price which it was worth to them. Then one of his companions said to him, " Woe to thee, O Ṣafṭī ! Allow us to eat of its flesh just now ! " So he shook his head (in assent) and overtook the merchants and seized the camel's head-rope, and said, while he was intently looking at it, " Oh, you fat camel ! " [p. 96.] Then the narrator swears that the camel did not move from its place but fell to the ground, and they slaughtered it. But (he says) the strange fact was that its flesh was tasteless and blueish in colour.

A friend told me that two men skilled in envy (*ḥasad*) and renowned for it were feared by the people. One day one of these two went to visit his friend (the other envier) and found him ploughing the land with two large oxen. So he looked

[1] [See footnote above, p. 40.]

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at them an instant. A second later one of the bulls was choked and the plough broken. Then al-Sa'dāwī [this was his name] called to him, " Woe to you, O Jafīla ! Could you not find someone else to afflict to-day with the blade of your envy ? Off with you, for I will retaliate upon you." He did not postpone his threat long, for the fire of envy enraged him. In the evening he went to the enclosure of his fellow " craftsman," but did not find him there. Instead he found a bull which he stared at with his eyes. Instantly the bull fell down, and al-Sa'dāwī thereupon withdrew. When Jafīla arrived and his people told him about it, he asked them, " Was al-Sa'dāwī present ? " Consider these two fools !

And because of the prevalence of this matter in the provinces you can see many illnesses, even wide-spread fevers, ascribed to " Envy." To " cure " this the " old wife " betakes herself to charm the patient, and kindles a fire on which she throws pieces of *shabb* (one of the compounds of Alumina) and *fasūkh* (sweet-smelling pine-resin) or *jāwī*.[1] Then when the *shabb* melts upon the fire it evaporates and some of the vapours become polluted with its elements and assume various forms. The " old wife " says that they are the representation of a woman or a man, according to her fabrications. [A fuller account than this is given by Lane in his *Modern Egyptians*, chapter XI, page 257 (Everyman Edition). Tr.]

[p. 97.] (Cases in point). The " old wife " once fumigated a young man. When she had blown up the alum (*shabb*) she pointed to it as the image of a woman whose name she mentioned, and who was well-known in their village for " envy." Thereafter she took a pin and stabbed it into the image saying, " May God put out her eye ! "

By a strange happening the woman, noted for her envy, came to the young man (who was a physician) complaining of ophthalmia. Someone told her that the old " fumigating " wife had stabbed a pin in the eye of the image and mentioned her name. Then the silly woman imagined that the ophthalmia had only arisen because of that, and went off to raise her plaint. From her imaginings she created realities for which she began

[1] [i.e. benzoin. The more correct name is *lubān jāwī*, i.e. Javanese frankincense. Tr.]

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NATIVE PLOUGH IN EGYPT

BY

MOHAMED RIAD

Since millenia the cultivable soils of Egypt is confined to the Delta and the Valley of the Nile. This soil was deposited by the Nile through immemorial times and as a result it is composed, generally speaking, of nearly homogeneous fine particles which attain a mean depth of about 10 meters. The fact that such thickness and homogeneity of the cultivated soils rendering the minimum of soil variations has contributed much to the form and technique of the prevailing plough in Egypt. In fact the Egyptian plough is a simple one which is used to break the soil and not like other contemporary ploughs in Europe and elsewhere, does not invert the soil. This may be due to the aforementioned reason, i. e., the homogeneity of the soil, as much as other physical factors foremost among them are the yearly deposition of new soils through the agency of the flood on the one hand, and the penetration of air through the soil particles during the inter-planting period on the other hand. These factors and others did not necessitate deep ploughing or soil inversion, and as long as these factors remained in control of the type of cultivation in Egypt —which it did all over the history of agriculture in Egypt, due to the system of Basin Irrigation, —the evolution of the Egyptian plough was and is very slow in what concerns the major lines of form and technique. Yet there exist in Egypt at the present time two substantially different types of ploughs which function in similar physical conditions but exist in different regions. Building a co-existence among these two plough types, mixed offshoots arose to balance the picture and to ease the sharpness of plough boundary in the relatively small cultivable area of Egypt. Now we can differentiate at least seven plough types each with a limited geographic area.

407* 241 ● 134 241 407* [184] [184]

[p241]

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GEOGRAPHICAL DISTRIBUTION OF PLOUGH TYPES.

*407 184 The seven mentioned plough types which prevail in Egypt, reproduced in plates 1 to 4, are as follows :

Type I : the split handle, straight beamed type. This type prevails in both Western and Central Delta with the exception of the south-eastern area of Central Delta.

Type II : the single handle, curved beam plough. This type, one of the two basic ploughs in Egypt, prevails in the Eastern Delta roughly south of 31 degree of North Latitudes. It also exists in the south-eastern parts of the Central Delta.

Type III : the single handle, straight beamed plough. This type, being a mixture of both previous types, prevails spatially in the same region type II occupies.

Type IV : the right-angled double handles, straight beamed plough. This type prevails in the northern Provinces of Upper Egypt and reaches southwards as far as the boundary of Minya and Assiut Provinces. Nearly the same type prevails in the North-eastern Delta, roughly in a pocket to the north of Latitude 31, bordered by Lake Manzala to the East and north-East, and by the Damietta branch of the Nile's Delta to the West and north-West.

Type V : the obtuse-angled double handles, straight beamed plough. This type is the second of the two basic plough forms in Egypt, and prevails in southern Upper Egypt.

Type VI : the single handle, straight and short beamed plough. This [241] type is the usual garden type, and has many varieties, some wheeled while others are not wheeled but possess a fork-like extension of the beam, etc... This is extensively used in the Delta, and rarely found in Upper Egypt.

Type VII : the single handle, straight beamed, and wheeled plough. [241] This type is usually used in light soils, especially nearer to the edge of the desert in Eastern Delta.

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*407 3. Handles and Grip.—The handles are all over Egypt made of wood and attain the height of between 100 and 110 cms. As already mentioned the handle or handles are fixed to the base in different methods which will be explained later. The grip is also a wooden peg either protruding longitudinally in the case of one handle, or split handle, or a cross beam fixed to the two handles in the double handled types. The handles and the grip serve in the Egyptian ploughs to control the manouvering of the plough and the depth of the ploughing and are handled either by one hand or both hands according to the manner in which the grip is fixed.

4. The Beam.—It is either a straight or curved wooden pole which is attached to the base in different ways, and serves to connect the whole plough with the yoke by inserting a cross peg in a socket holed at the fore end of the beam. The beam attains a length which varies between 300 cms. and 350 cms. and usually has a square cross-section of 10 by 10 cms.

5. The Pin.—This is an iron bar which attains the length of about 50 cms. and a breadth of about 4 cms. This type of pin prevails all over ploughes in Egypt except in type V where we find the pin made of wood. Moreover the iron pin has a set of holes in which a peg is inserted over the beam to prevent it from springing upwards during ploughing, and at the same time controls the angle of the plough.

492 6. The Yoke. This is a wooden pole of about 270 cms. in length, which is put on necks of the animals drawing the plough. To fulfil its purpose the yoke has five pegs: one in the middle to which the rope connecting it to the beam is attached, and two pegs at each end of the yoke to which the two ends of the rope which encircles the neck of the [184] animal are tied. Such a yoke is universal all over Egypt except in type VI [241] where the plough is drawn by one animal, thus requiring a small curved yoke to which the single animal is harnessed.

*407 Such are the basic parts of the Egyptian plough and the previous description will be found useful in both understanding the structure of the plough at large, and illuminating in the following comparison.

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to types IV and V, and the longtudinal grip of both the single handled plough types II, III, VI, and VII, and of the split handled type No. I. From the point of utility a transversal grip should be handled by both hands and thus precondition that the ploughman should go behind the plough. This is indeed the case in type V, but because the handles of type IV are not retreating rearwards it became awkward for the ploughman to handle the plough from behind, and it is usual in this case that he walkes, beside the plough griping it by his right hand. This way of handling the grip is also usual in the cases of the longtudinal grip of all other types. The longtudinal grip differ in form and length in the single handle types than that of the split handle plough. In the last named the grip is a small wooden peg inserted in the upper part of the handle from behind. This peg is so small that it deserves its arabic appellation «'Asfura» which means a sparrow or a little bird. In fact the ploughman in this type does not use this small grip and instead control the plough by the upper end of the handle. The grip in the case of single handled ploughs is usually a larger wooden peg which is inserted in a socket in the handles and protrudes from both sides of the handle. Thus the grip here serves to handle the whole plough.

4. The Share.—All the Egyptian ploughs use the varieties of shares already described above except the share of plough type No. V. Here the share has no wings or neck but take a regular form with a butt end in the rear and a sharp point on the foreward end.

5. The Beam.—We have already detected two kinds of beams in the Egyptian plough, namely the more commonly dispersed straight beam on the one hand and the curved beam which only appears in plough type II on the other hand.

The straight beam differ from one type plough to the other in many respects. In type VI it is to be noted that the beam is considerably short, and a cross pole is fixed to its extremity to enable either a double rope, double longtudinal wooden extension to be fixed at either ends of this cross bar, or a fork-like extension (see plate IV). This is a necessary technical adjustment for the one animal which is assigned to draw such

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point to the Italian word Bilancia[1]. In this way could we seek the origin of the term « Bazha » (the base of the plough) to such origins? In addition to these foreign terms there are arabic names, e. g., « Silah » blade or share, « Riesh » = feathers, « Romh » spear, while the words « Antot » and « Naf » may belong to the Coptic or ultimately to the Egyptian languages. In this way we may see that the Delta, though homogeneous, reveal three segmented linguistic and cultural layers: the Egyptian, the Greco-Roman, and the Arabic. This conclusion, supported by historical records, has its reasoning in the geographical situation of the Delta as the northern limits of the Egyptian Nile Valley, as the area facing the Mediterranean, and lastly as the area exposed to Arabia.

If the Delta is established as one region, we can further divide it in two sub-regions. Leaning on the arguments stated above, the Eastern Delta would stand alone as a sub-region, while the other parts of the Delta would constitute the second sub-region. There is no part of the Delta other than its East which received so many human and cultural elements from the Middle-East and Arabia and it happens that that part, in what concerns the plough, is remarkably different in terminology and technique. This area, where type II is at home, did not only account for the several offshoots of plough forms (types III, VI ,VII) but also affected the manner in which the ploughman controls his plough. All over the Delta and Middle Egypt the ploughman marches beside his plough where a split handle or a double handle is used. This, as Winkler rightly pointed out[2] is due to the influence of plough Type II, where the ploughman always walk to the left of the plough. In the same source, Winkler claims that this habit of going beside the plough in itself is an evidence of the prior spread of plough II all over the Delta and Middle Egypt[3]. But we must not build a whole theory upon one factor. It is true, as we shall see below, that a curved beamed plough was discovered in Fayum dating to the Roman Period, but this plough was not single

[1] Winkler, H. A., 1936, p. 164.
[2] Winkler, 1936, pp. 148, 150.
[3] Winkler, 1936, pp. 150, 163.

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171 *407 Herzog again states[1] that the plough is to be found in middle Nubia, and says that an Egyptian governer of Nubia about 1870 tried to persuade the people to use the plough. Though he failed at the begining, the plough, since the introduction of water pumping stations, is now in use in Nubia.

Very important to us is that both the Oasis of Dahla and Harga use a plough which at least in Harga belong to plough type IV[2], and that Nubia uses also an Egyptian plough. These facts make it clear that the Egyptian Oasis and Nubia are part and parcel of the Egyptian Cultural Region as a whole. The existence of plough type I in Nubia cannot be explained by geographical facts —for as such we would have found plough type V —but can only be explained by the human hazard. If the governor of Nubia happened to be accustomed to Upper Egyptian ploughs the picture would be now different! Trade routes which connect the Oasis with Assyut and Minya Provinces from times immemorial are responsible for the existence of plough type IV in these Oasis. [487]

PROSPECTS

•241 One cannot deal with the plough without a few lines about its future. Egypt, through its long history depended upon agriculture for at least seven thousand years. Until 150 years ago the Egyptian agriculture was used to the method of basin irrigation, and there was generally only one crop. The rest of the year the basins were first under the water of the flood —with its renewal of the fertility —then left to dry, thus enabling the penetration of air and heat in the soil —which add to its strength. It is now the theory that the excellent crop of Basin land in souther Upper Egypt is due to both factors, but more to the resting period of soil —which is called in Egypt season of «Sharaiy or Sharaqy». This may also be applied to explain the fabulous richness of Egypt through its long history.

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[1] Herzog, pp. 205-207. On page 205 there is a photograph of a plough in Middle Nubia, which Herzog on page 206 describes as a one handle plough type. This is not the case, and it is apparent from the photograph that plough belong to the Egyptian type I, i.e., the split handled plough. [114]

[2] Winkler, Plate 35, and text page 148.

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Since the application of the system of perennial irrigation 150 years ago, no actual «Sharaiy» is applied to the land, and this is one of the causes of smaller production. We do not mean to hold back the history, because perennial irrigation gives Egypt the possibility of fitting in the economic picture of the world through the cultivation of cash crops together with industrial crops (e. g., cotton and sugar-cane). Egypt cannot afford to retreat to basin irrigation, but on the contrary, all basin land will be converted in the near future to perennial irrigation, after the completion of the High Dam project. Problems of the increasing population of Egypt, added to the land hunger, needs all efforts to make the best out of the situation by increasing the crop area and its output.

Now the plough types which we have described are all of the kind which break the soil and does not invert it. This kind of ploughing only makes superficial furrows, thus does not penetrate deep. Such a method was sufficient in basin irrigation, because the soil took its due rest and airing in the Sharaiy period.

If these ploughs were substituted by a plough type which plough deeper and, which invert the soil, we may, in this way, compensate, to an extent, the lack of Sharaiy, by exposing more soil to the air, and simultaneously by letting the air penetrate in the deeper furrows which would result from such ploughing. This though may appear a bit theoritical, it deserve an experiment. So far as we know, some big land owners use mechanical ploughs. All we need is to study the output of such ploughed lands and compare it with other land ploughed by the native wooden plough. In such a study one must take in consideration much different elements. For example one should not compare the mean output of a feddan in a big estate with that of very small holding. Small holdings though wide spread in Egypt —does not represent the usual agricultural pattern, but it is more like horticulture. In a small holding the members of the family actually work every bit of land manually. We should then compare the output of big holdings using wage labour, and using on the one hand wooden ploughs and on the other hand mechanical ploughs.

If mechanical ploughs are found useful in increasing the output, there is another problem which should be faced; small holdings cannot afford such costy ploughs. But the roots of overcoming such a problem may be

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241 [243] found in what we have observed in a small village in Central Delta. To thresh corn the Egyptians use a special cart or wagon with sharp-edged iron wheels which is drawn either by one or two animals. This implement is used since a very long time in Egypt. Some five years ago the peasants of this village —and probably in many places in the Egypt— can hire a tractor of a rich neighbour, and let the tractor pull three to five threshing waggons, one behind the other. In this way a work of a week done by the slow animals and one cart, is done in a day or two by the quick tractor and the triple number of threshing waggons. In a similar way mechanical ploughs can be used. The spread of mechanical ploughs would end, among others, in the following results :

1. Quick ploughing would result in relieving many working hands for other periodic wage-labour, increasing thus the private income.

2. Relieving the animals from a part of their hard work, thus enabling Egypt to develop animal husbandry and dairy production.

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Place of observation	Base	Share	Handle	Iron bands	handle grip	Beam
Upper Egypt :						
Mallawi (3) (+)	Wish	Sikke	Gafaien	Tog	Gabda	Gasaba
Garf Serhan (2) (+)	"	"	"		"	"
Nazlet 'Abdalla (3) (+)	"	"	Dafaien	Dibel	Nadel	"
Aulad Mohamed (3) (+)	"	"	Gafaien	Dog	Gabda	"
El-'Ezbi (3) (+)	"	"	"	Tog	Rabba	"
Aulad 'Imran (3) (+)	"	"	"	"	Dabba	"
Abu Manna' (1) (+)	"	"	"	"	Gabda	"
Essaberiat (1) (+)	"	"	"	"	"	"
Kiman (3) (+)	"	"	"	Dibel	"	"
Harragia (2) (+)	"	"	"	"	"	"
El-'Ammari (1) (+)	Wagh	"	"	"	"	"
Nauasir (3) (+)	Wish	"	"	"	Maghad	"
Kelh (3) (+)	Wigh	"	Hadd	"	"	"
Ramedi South (1) (+)	"	"	Gafaien	"	"	"
Benban (3) (+)	Wagh	"	Hadd	"	"	"
Baharif (3) (+)	Sikke	"	Rigil	"	Yadd	
Palestine :						
Southern area (2) (=)	Ardiya	Hasecm	Romh		Hamama	Koo'
Libya :						
Tripoli (2) (+)	El-Layta	Sikka	Seluqina	—	Qarraga	Raqaba

(1) Ploughs observed by the author.
(2) Ploughs described by some students of the author (faculty of Arts, Ain-Shams Univ.).
(3) Ploughs described by H. A. Winkler pp. 153-158 (see references below).
(+) Double handle plough.
(=) Curved beam plough.
(+) One animal plough (usually garden plough).
(++) Wheeled plough (usually used in sandy areas).
(+) I) Wheeled plough (usually for vegetables).
(= =) The first part of the beam, which is attached to the share is called Wasle, while the forked fore part of the beam is called Arish, and the whole is called Ous. see Winkler, H. A., p. 154.

[241]

Transcription :

'	همزه	b	ح	ḥ	ح	Sh	ش	s	ص	d	ض	T	ط	'	ع	ġ	غ	q	ق

[104]

) This Sign – on any vowel means elongation of the vowel.

×539 And when ye sing: "O Moḥammed!",
782 Go ye and come ye [— O Moḥammed].
But whoever fails to say: "O Moḥammed!",
Will lie, some morning, slain [— O Moḥammed],
In the bean-field, [— O Moḥammed],
He and his mother and the wife of his uncle!
[O Moḥammed].

1—4. Invocation of the Prophet Moḥammed.

2. "By Allah" is used to confirm the truth of what follows in the song.

[792] 3. Rāma is, according to Maḥmûd, a name of the mother of the Prophet.

5. Addressed to companions.

[192] [776] 8. "Go ye and come ye" is, of course, to be completed with: bis-salāme, "in safety". The road to the excavations is often long and the peasant-boy's imagination pictures ḥarāmîye (thieves) and 'afārît (evil spirits) lurking about everywhere. There is, in Cairo, a proverb, which runs: kullē ḫarâbe welina fiha 'afrît, "In every ruined house there lurks for us an evil spirit." In order to understand this proverb, it is necessary to remember, that in the native quarters of oriental cities, half or totally ruined houses are a much more frequent sight than with us. Moreover, Abu Gūrâb (the ruin of the sun-temple, see page II) before our excavations, was regarded as full of evil spirits.

[362] [172]

[241] [262] 11. In the spring, wide stretches of land are covered with the tall fûl plant or hog's bean. In Egypt this bean is an important element in the nourishment of man and beast. Compare No. 14, l. 2.

12. He involves with him in his ruin, even his dearest relatives.

9: Klunzinger D-5 (1863-1875) 1878
MR13 Fellahin MR13
Upper Egypt

has made his preparations for the hour of prayer, and after the performance of his devotions he returns home and enjoys his simple dinner. This consists for the most part only of bread with fruits or with white country cheese, milk, salt fish, or molasses (the so-called black honey).

He takes care not to make his mid-day sleep too short, especially in the long warm days of summer, and he lies down in his house or in his shop, in the café or in any shady spot in the open air; at this time the streets and markets become deserted. Not till well through the afternoon does he again move, when he begins the second portion of the day as he did the first, with ablutions, prayers, and coffee, afterwards bestirring himself with some energy to make up during the remainder of the day for the time he has dreamed and trifled away. For this remainder is but short, and with the last rays of the setting sun the call from the minaret is again heard, the trader shuts his shop, the workman flings by his tool, the scholar, the writer, and the man of learning shut their books. This dawdling habit, which, in the province, at least, is the rule, is not, however, solely the result of indolence, but arises more from the fact that little trade or industry exists, and the want of a regular weekly day of rest is also not without blame. The natives when necessary often display the greatest ardour and even steady perseverance.

The cultivation of the fields allows the countryman less leisure for the *dolce far niente*, but even he does not overwork himself. From the mellowness and fertility of the soil his labour is light enough when compared with that of a northern peasant, and chiefly consists in the artificial watering of the land, effected mostly by the labour of young people or of cattle. When he can the countryman also takes his hours of idleness, and sleeps, and gossips, and sings. He too is never in a hurry. This slowness of action, intimately connected as it is with fatalism, is as intolerable to a European who is in haste, as it is beneficial to one who wishes to rest a little from the hurry and scurry of the West.

After his evening devotions the dweller in the town moves